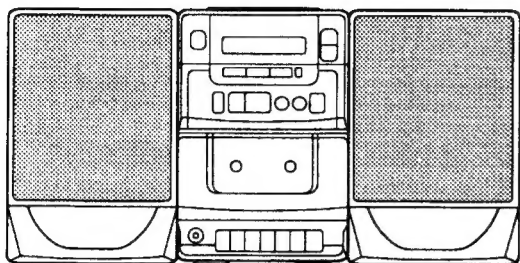


aiwa



LCX-100



COMPACT DISC STEREO SYSTEM

- BASIC CD MECHANISM: KSM-2101BDM
- BASIC TAPE MECHANISM: TN-21ZSC-1653

•TYPE: EZG, EZL

- This Service Manual contains information about the difference between LCX-100 (TYPE:EZB).
If requiring the other information, see Service Manual of the LCX-100(TYPE:EZ).
(S/M Code No. 09-966-145-10T)

SERVICE MANUAL

ALTERATION LIST

MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF.NO	PART NO.	カンリ NO.	DESCRIPTION
2	S1-033-440-401		PANEL, FRONT
3	S1-033-430-301		CASS, WINDOW
4	S1-033-400-302		DOOR, CASS<EZG>
4	S1-033-400-402		DOOR, CASS<EZL>
7	S1-033-370-401		CAB, FRONT<EZG>
7	S1-033-370-501		CAB, FRONT<EZL>
9	S1-033-490-102		BTN, EQ<EZL>
9	S1-033-490-402		BTN, EQ<EZG>
10	S1-033-510-402		BTN, VOL<EZL>
10	S1-033-510-302		BTN, VOL<EZG>
12	S1-035-620-401		KEY, F.F<EZL>
12	S1-035-620-301		KEY, F.F<EZG>
12	S1-035-650-301		KEY, PAUSE<EZG>
12	S1-035-650-401		KEY, PAUSE<EZL>
12	S1-035-610-301		KEY, PLAY<EZG>
12	S1-035-610-401		KEY, PLAY<EZL>
12	S1-033-480-301		KEY, REC<EZG>
12	S1-033-480-401		KEY, REC<EZL>
12	S1-035-630-401		KEY, REV<EZL>
12	S1-035-630-301		KEY, REV<EZG>
12	S1-035-640-301		KEY, STOP<EZG>
12	S1-035-640-401		KEY, STOP<EZL>
13	S1-033-580-301		CD, WINDOW
14	S1-033-420-401		DOOR, CD<EZL>
14	S1-033-420-301		DOOR, CD<EZG>
16	S1-033-570-102		BRKT, DOOR CD
19	S1-033-410-402		CD, CHAS<EZL>
19	S1-033-410-302		CHAS, CD<EZG>
23	S2-010-920-102		SPR, DOOR CD
27	S1-033-380-402		CAB, REAR<EZL>
27	S1-033-380-302		CAB, REAR<EZG>
33	S1-033-390-401		DISPLAY WINDOW
34	S1-033-520-401		BTN, CD
35	S8-013-420-000		SW, LEAF LSA-1120Y

サービス技術ニュース	
番号	連絡内容
G - -	
G - -	
G - -	

アイワ株式会社
AIWA CO.,LTD.

931261

Tokyo Japan

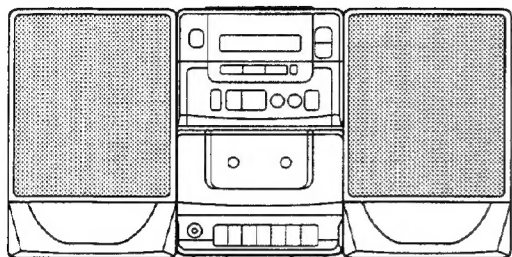
aiwa



AIWA-01931



LCX-100



COMPACT DISC STEREO SYSTEM

- BASIC CD MECHANISM: KSM-2101BDM
- BASIC TAPE MECHANISM: TN-21ZSC-1653

- TYPE: U, LH, K, EEZ, EZ, HE, HR

MANUAL SERVICE

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SPECIFICATIONS

Main unit

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Antenna	Wire antenna

<MW (AM) tuner section>

Tuning range	HE, HR: 531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1600 kHz (10 kHz step) LH, U: 530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step) K, EZ, EEZ: 522 kHz to 1611 kHz (9 kHz step) 530 kHz to 1600 kHz (10 kHz step)
Antenna	Loop antenna

<SW tuner section> HE, HR, LH

Tuning range	3.8 MHz to 12.5 MHz (5 kHz step)
Antenna	Wire antenna

<LW tuner section> K, EZ, EEZ

Tuning range	144 kHz to 290 kHz
Antenna	Loop antenna

<Amplifier section>

Power output	LH, HE: 5 W+5 W (4 ohms, T.H.D. 10%) HR: Rated 3.5 W+3.5 W (4 ohms, T.H.D. 1%) Reference 5 W+5 W (4 ohms, T.H.D. 10%) U: 5 W+5 W (1 kHz, T.H.D. 10%, 4 ohms) 3.2 W+3.2 W (100-15 kHz, T.H.D. less than 1%, 4 ohms) K, EZ, EEZ: Rated 3.2 W+3.2 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference 5 W+5 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324) DIN MUSIC POWER 8 W+8 W (1%)
--------------	---

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	Normal tape: 50 Hz-12500 Hz (EIAJ)
Recording system	AC bias
Erasure system	Magnet erase
Heads	Recording/playback head×1 Erasure head×1

<Compact disc player section>

Laser	Semiconductor laser ($\lambda=780$ nm)
D/A converter	1-bit dual
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speaker	100 mm (4 in.) cone type
Impedance	4 ohms
Dimensions (W × H × D)	HE, HR, LH, K, EZ, EEZ: 150 × 233 × 203 mm (6 × 9 1/4 × 8 in.) U: 150 × 230 × 220 mm (6 × 9 1/8 × 8 3/4 in.) HE, HR, LH, K, EZ, EEZ: 2.3 kg (5 lbs 1 oz.) U: 2.8 kg (6 lbs 3 oz.)
Weight	

GENERAL

HE, HR, LH:	
Power requirements	110-120 V/220-240 V AC, switchable 50/60 Hz
Power consumption	26 W
Dimensions of main unit (W × H × D)	160 × 233 × 203 mm (6 3/8 × 9 1/4 × 8 in.)
Weight of main unit	2.7 kg (5 lbs 15 oz.)
U:	
Power requirements	120 V AC, 60 Hz
Power consumption	22 W
Dimensions of main unit (W × H × D)	140 × 235.5 × 283.6 mm (5 5/8 × 9 3/8 × 11 1/4 in.)
Weight of main unit	2.85 kg (6 lbs 4 oz.)
K, EZ, EEZ:	
Power requirements	230 V AC, 50 Hz
Power consumption	30 W
Dimensions of main unit (W × H × D)	160 × 233 × 203 mm (6 3/8 × 9 1/4 × 8 in.)
Weight of main unit	2.7 kg (5 lbs 15 oz.)

- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstråling, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

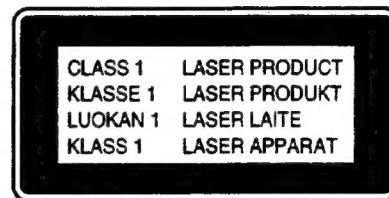
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

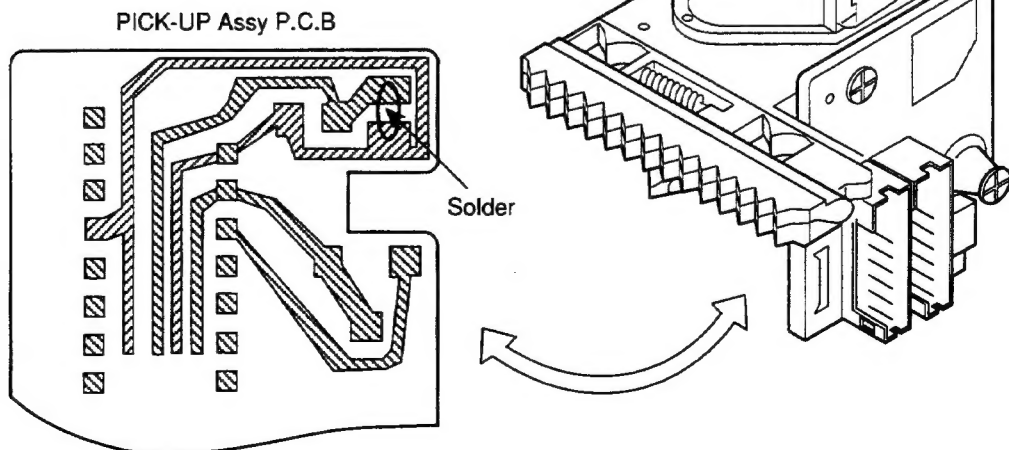
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block (KSS-210B)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
IC				C64	87-010-263-010		CAP,E 100UF-10V<EXCEPT U>
	87-017-680-010		IC,TA8176SN	C72	87-010-248-010		CAP,E 220 10V<U>
	87-017-882-010		IC,LA1831<EXCEPT U>	C73	87-010-035-010		CAP,E 2.2-50V<U>
	87-002-268-010		IC,LA1851N<U>	C77	87-016-073-080		CAP,E 1-50V<U>
	87-001-376-010		IC,LC7218	C79	87-016-073-080		CAP,E 1-50V<U>
	87-070-134-010		IC,TA2065F				
	87-070-336-010		IC,TC9284BF	C79	87-010-221-040		CAP,E 470UF-10V<EXCEPT U>
	87-017-801-080		IC,TA2058F	C80	87-016-073-080		CAP,E 1-50V<U>
	87-001-536-010		IC,NJM78M05FA	C81	87-015-693-080		CAP,E 0.33UF-50V<U>
	87-017-804-010		IC,BU4052BC	C82	87-015-391-010		CAP,E 0.22UF 50V<EXCEPT U>
	87-017-787-010		IC,M62412F	C83	87-015-391-010		CAP,E 0.22UF 50V<EXCEPT U>
	87-017-564-010		IC,LC7533				
	87-017-982-010		IC,BA5412	C86	87-010-404-010		CAP,E 4.7 50V<U>
	87-070-083-010		IC,GP1U281X	C91	87-A10-216-080		CAP,E 47UF-25V<EXCEPT U>
	86-CL9-501-010		IC,TMP47C1220F-N641	C92	87-010-498-010		CAP,E 10UF-16V<U>
	87-027-761-010		IC,AN7310N	C105	87-015-693-080		CAP,E 0.33UF-50V<U>
				C106	87-015-693-080		CAP,E 0.33UF-50V<U>
TRANSISTOR							
	S2-2SC-192-306		TR,2SC19230	C137	87-010-263-010		CAP,E 100 10V<U>
	87-026-288-010		TR,DTA143XS<EXCEPT U>	C139	87-010-035-010		CAP,E 2.2-50V<U>
	87-026-287-010		TR,DTC143ES<U>	C166	87-010-553-040		CAP,E 47-16V<U>
	89-501-615-010		TR,2SK161Y	C166	87-010-553-040		CAP,E 47-16V<EXCEPT U>
	87-026-219-080		TR,DTA144ES<EXCEPT U>	C197	87-010-544-010		CAP,E 0.1UF-50V<EXCEPT U>
	S2-2SK-246-Y60		TR,2SK246Y				
	89-318-154-080		TR,2SC1815GR	C503	87-016-073-080		CAP,E 1-50V
	87-026-486-080		TR,DTA144TS<EXCEPT U>	C504	87-016-073-080		CAP,E 1-50V
	87-026-291-080		TR,DTC124XS	C507	87-016-073-080		CAP,E 1-50V
	87-026-214-010		TR,DTA114YS<U>	C508	87-016-073-080		CAP,E 1-50V
	87-026-286-010		TR,DTA143ES<U>	C509	87-010-263-010		CAP,E 100 10V
	87-026-462-080		TR,2SC1740S				
	S2-2SB-101-0Q7		TR,2SB1010Q	C513	87-016-073-080		CAP,E 1-50V
	89-110-155-010		TR,2SA1015GR	C514	87-016-073-080		CAP,E 1-50V
	89-320-011-280		TR,2SC2001K	C521	87-010-374-010		CAP,E 47 10V
	89-322-405-080		TR,2SC2240GR	C523	87-016-073-080		CAP,E 1-50V
	89-414-683-080		TR,2SD1468R	C524	87-016-073-080		CAP,E 1-50V
	87-026-463-080		TR,2SA933S-S				
	89-210-154-010		TR,2SB1015Y	C525	87-016-073-080		CAP,E 1-50V
	89-113-187-080		TR,2SA1318TU	C526	87-010-544-010		CAP,E 0.1UF-50V
	87-026-464-080		TR,DTC114TS	C527	87-010-221-040		CAP,E 470UF-10V
	S2-805-0C1-000		TR,8050C	C528	87-010-374-010		CAP,E 47 10V
	87-026-290-080		TR,DTA124XS	C539	87-016-073-080		CAP,E 1-50V
DIODE				C540	87-016-073-080		CAP,E 1-50V
	87-020-465-010		DIODE,1SS133	C541	87-015-693-080		CAP,E 0.33UF-50V
	87-070-136-080		ZENER,MTZJ5.1B<EXCEPT U>	C542	87-015-693-080		CAP,E 0.33UF-50V
	S3-201-0V7-000		ZENER,10V-1/2W<U>	C544	87-010-037-010		CAP,E 10UF-50V
	87-070-334-080		ZENER,MTZJ10B<EXCEPT U>	C603	87-010-553-040		CAP,E 47-16V
	S3-FR2-021-000		DIODE,FR2002				
	S3-282-V80-000		DIODE,MTZJ8.2C	C604	87-010-553-040		CAP,E 47-16V
	S9-7U0-5R6-1B0		ZENER,MTZJ5.6A	C605	87-010-385-010		CAP,E 220UF-25V
	S3-222-V80-000		ZENER,2.2V-1/2W	C609	87-010-553-040		CAP,E 47-16V
	87-017-663-080		LED,5-5 (RED)L-1553IDT	C610	87-010-553-040		CAP,E 47-16V
	S3-MTZ-J33-A80		ZENER,MTZJ3.3A	C611	87-010-271-010		CAP,E 1000UF-16V
	S3-1SS-135-100		DIODE,1SS135<EXCEPT U>				
MAIN C.B				C612	87-010-271-010		CAP,E 1000UF-16V
BPF1	S2-900-621-000		FILTER,BPMB6AT<EXCEPT U>	C655	87-010-582-010		CAP,E 4700UF-35V
C43	87-015-697-080		CAP,E 3.3UF-50V<EXCEPT U>	C656	87-010-248-010		CAP,E 220 10V<U>
C45	87-010-412-010		CAP,E 10 25V<EXCEPT U>	C656	87-010-404-010		CAP,E 4.7 50V<EXCEPT U>
C48	87-010-248-010		CAP,E 220 10V<EXCEPT U>	C657	87-010-248-010		CAP,E 220 10V
C51	87-010-035-010		CAP,E 2.2-50V<EXCEPT U>				
	87-016-073-080		CAP,E 1-50V<EXCEPT U>	C659	87-010-544-010		CAP,E 0.1UF-50V
C53	87-010-404-010		CAP,E 4.7 50V<EXCEPT U>	C660	87-010-248-010		CAP,E 220 10V
C57	87-016-073-080		CAP,E 1-50V<EXCEPT U>	C803	87-010-263-010		CAP,E 100 10V
C58	87-016-073-080		CAP,E 1-50V<EXCEPT U>	C804	87-010-263-010		CAP,E 100 10V
C62	87-015-696-080		CAP,E 2.2UF-50V<EXCEPT U>	C807	87-010-404-010		CAP,E 4.7 50V
				C808	87-010-404-010		CAP,E 4.7 50V
				C813	87-010-248-010		CAP,E 220 10V
				C814	87-010-404-010		CAP,E 4.7 50V
				C815	87-010-404-010		CAP,E 4.7 50V
				C816	87-010-263-010		CAP,E 100 10V
				C822	87-010-263-010		CAP,E 100 10V
				C904	SC-C50-150-K00		CAP,CER 500PF-50V<K,EEZ,EZ>
				C906	SC-C22-250-Z00		CAP,CER 0.0022UF-50V<K,EEZ,EZ>
				C907	87-016-073-080		CAP,E 1-50V<K,EEZ,EZ>
				CF1	S2-900-081-000		CER,FILTER FM 10.7MHZ<U>
				CF1	S2-900-601-000		CER,FILTER FM 10.7MHZ<EXCEPT U>
				CF2	S2-900-601-000		CER,FILTER FM 10.7MHZ<EXCEPT U>
				CF3	S2-900-081-000		CER,FILTER FM 10.7MHZ<U>
				J601	S2-3B0-111-000		JACK,HP ST
				J602	S2-300-431-000		TERM,SPKR 4P(LCX100)

TRANSISTOR ILLUSTRATION



ECB

2SA933S
2SC1740S
DTA114YS
DTA124XS
DTA143ES
DTC114TS
DTC114YS
DTC124XS
DTC143ES



ECB

2SA1015
2SA1296
2SA1318
2SC1815
2SC1923
2SC2001
2SC2240
2SD1468
8050C



BCE

2SB1015



DSG

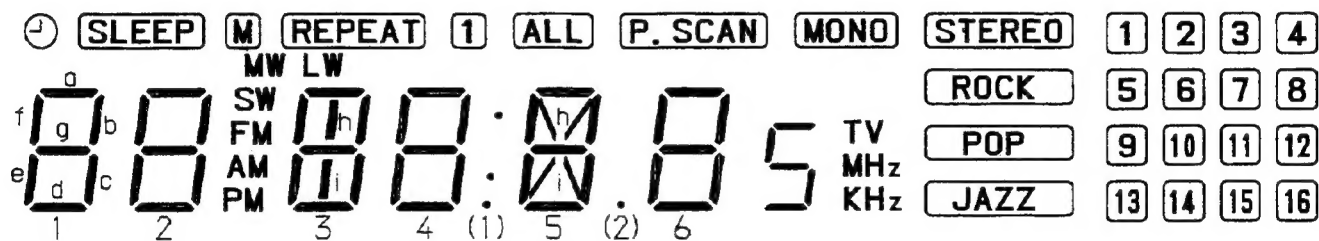
2SK161



SGD

2SK246

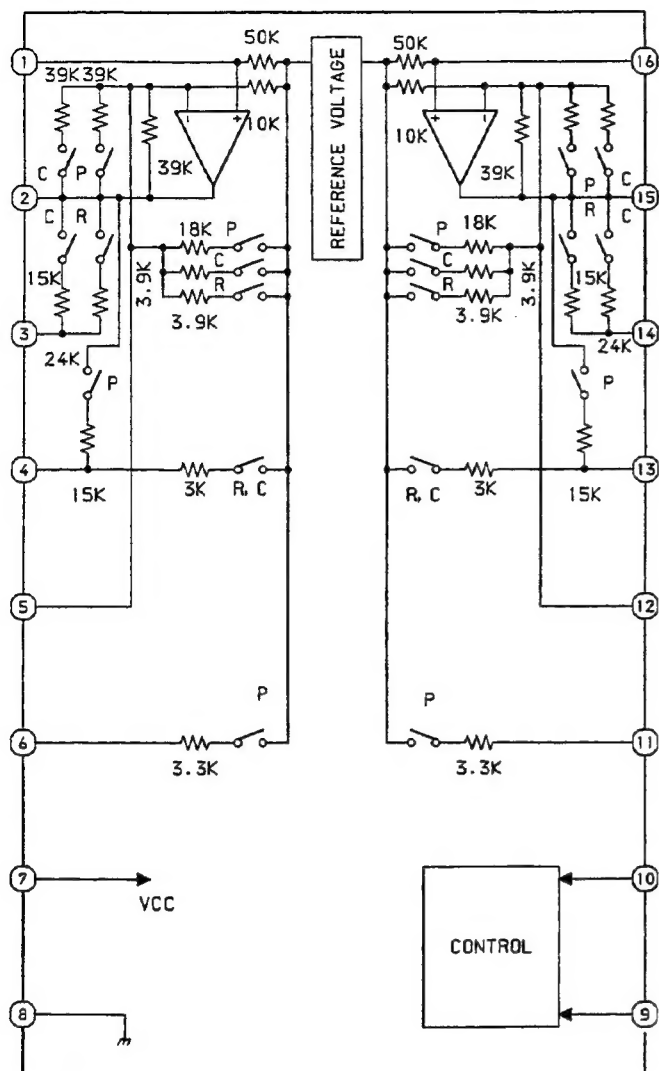
LCD ILLUSTRATION



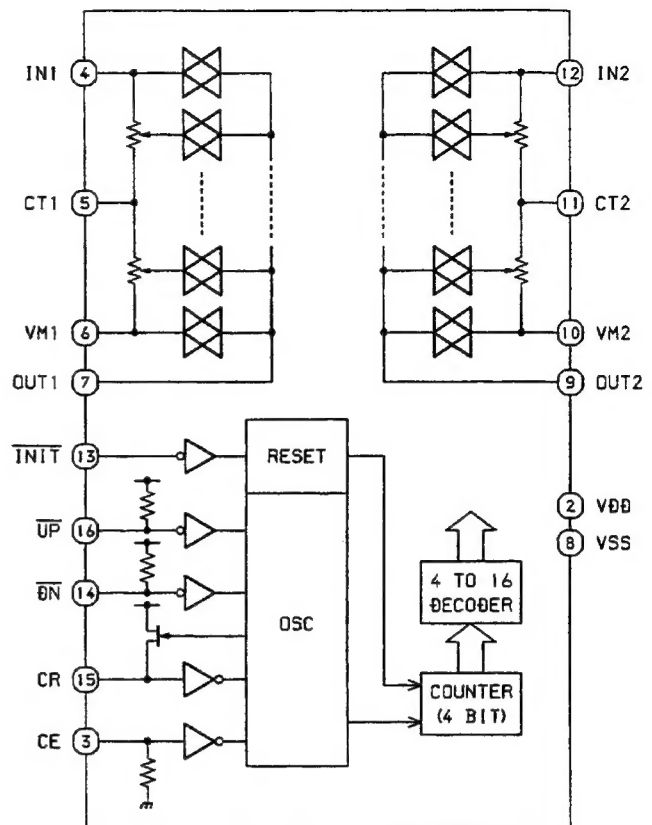
NO.	COM. 1	COM. 2	COM. 3
1			COM. 3
2		COM. 2	
3	COM. 1		
4	M	SLEEP	
5	REPEAT	1e	1f
6	1d	1g	1a
7	1	1c	1b
8		2e	2f
9	2d	2g	2a
10		2c	2b
11	MW	PM	SW
12	LW	AM	FM
13	ALL	3e	3f
14	3d	3g	3a
15	P. SCAN	3i	3h
16	MONO	3c	3b
17	:	4e	4f
18	4d	4g	4a
19	· (1)	4c	4b
20	STEREO	5e	5f
21	5d	5g	5a
22		5i	5h
23	· (2)	5c	5b
24	1	6e	6f
25	6d	6g	6a
26	5	6c	6b
27	KHz	MHz	TV
28	JAZZ	POP	ROCK
29	13	9	5
30	14	10	6
31	15	11	7
32	16	12	8
33	4	3	2

IC BLOCK DIAGRAM

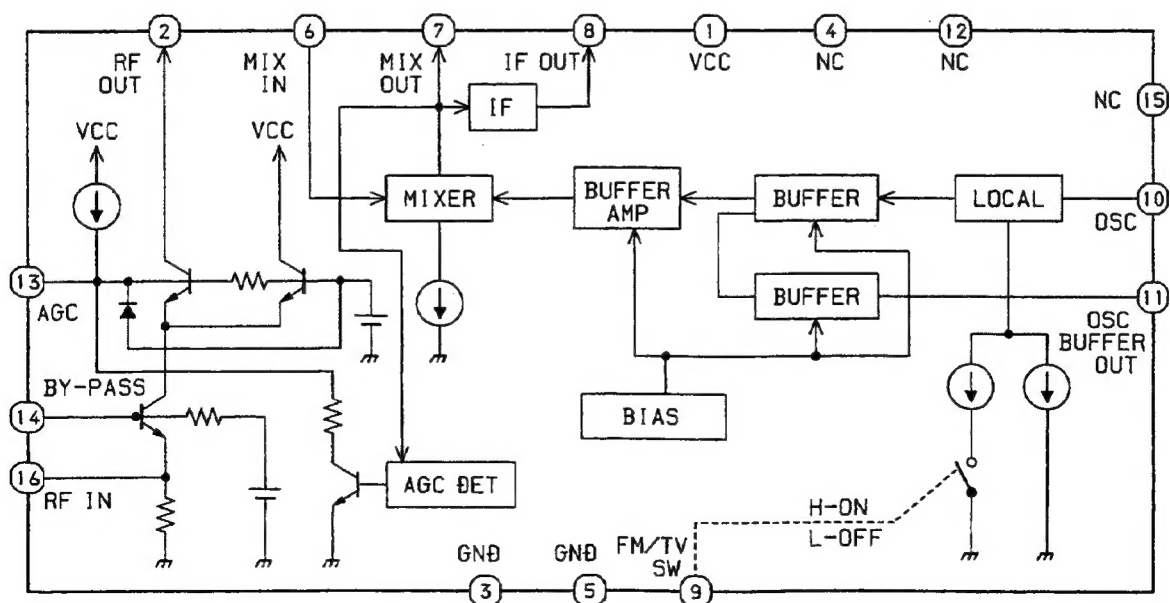
IC, M62412P



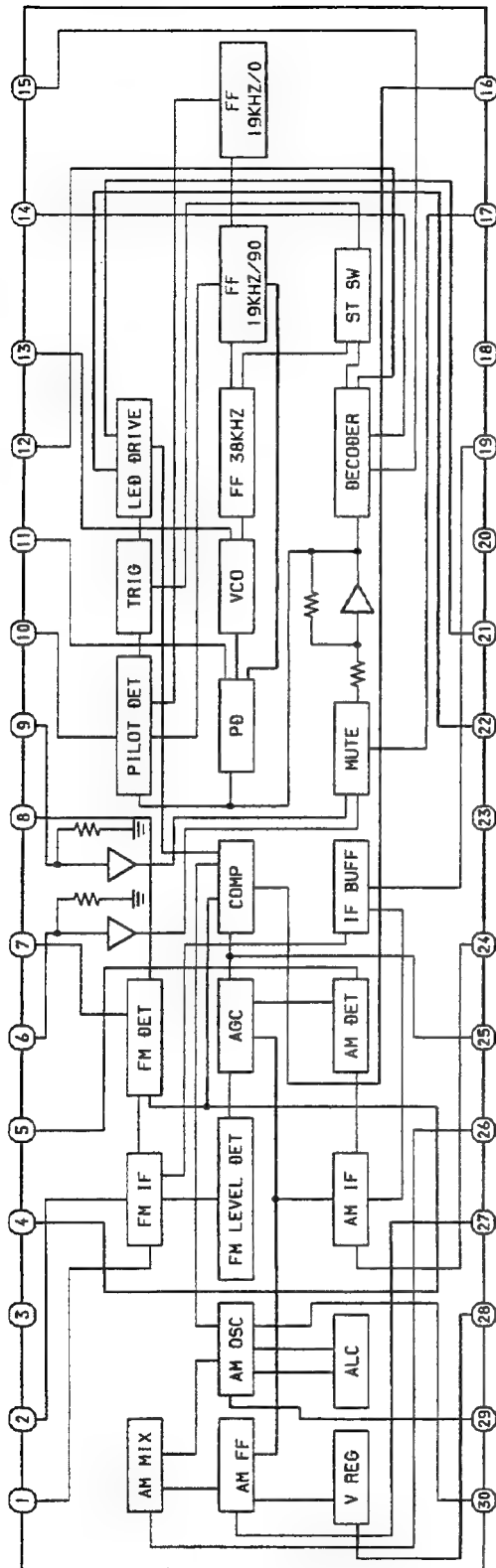
IC, LC7533



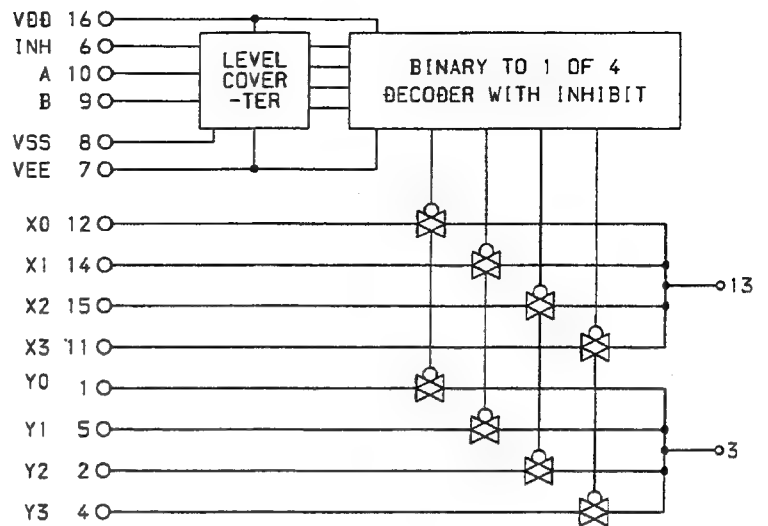
IC, TA8176SN



IC, LA1851N

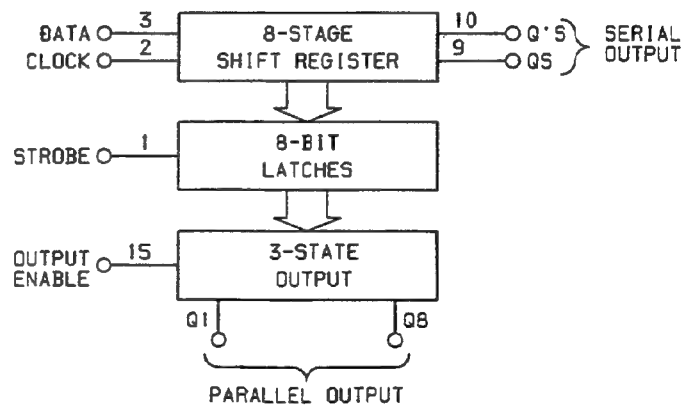


IC, BU4052BC

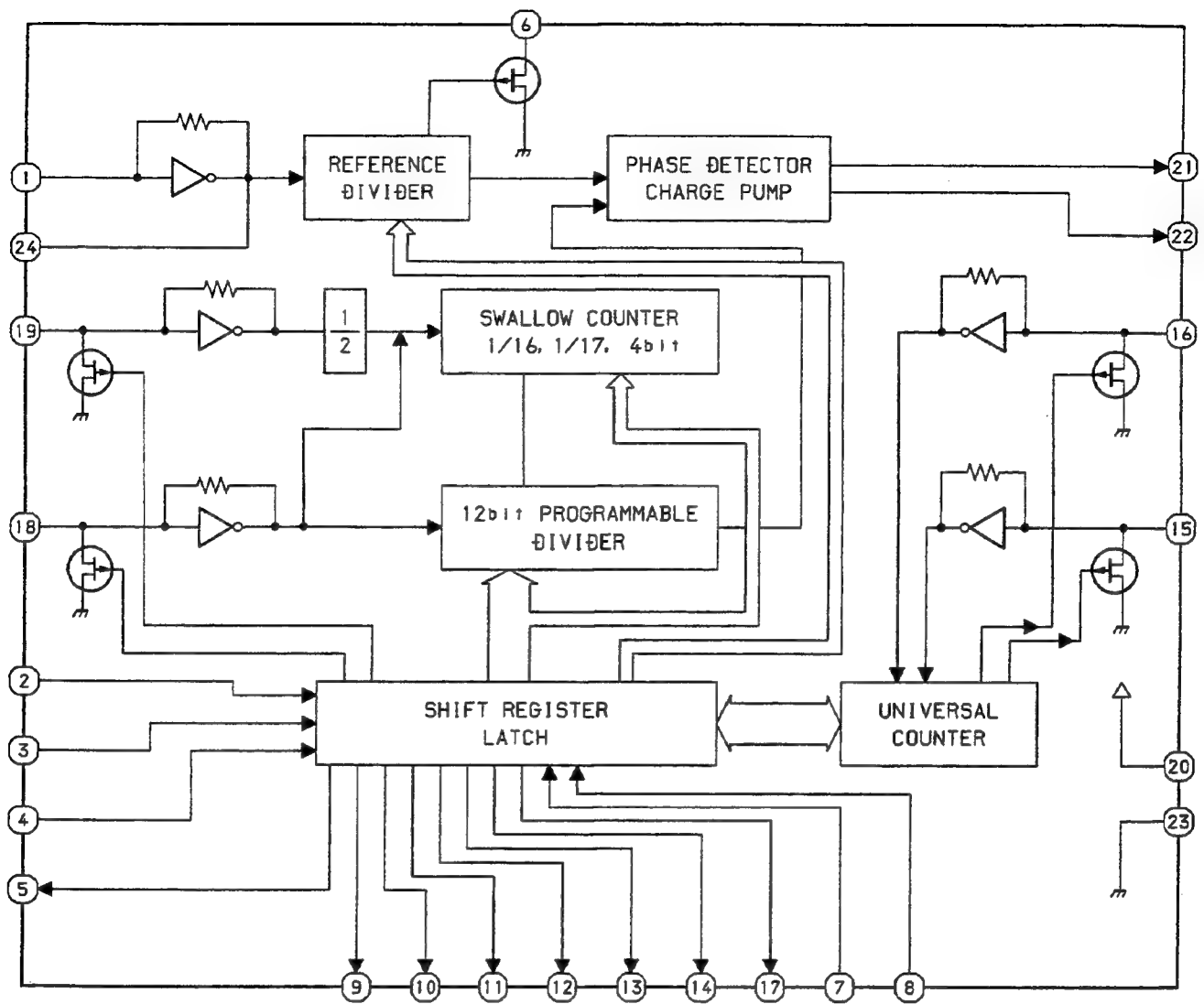


TRUTH TABLE

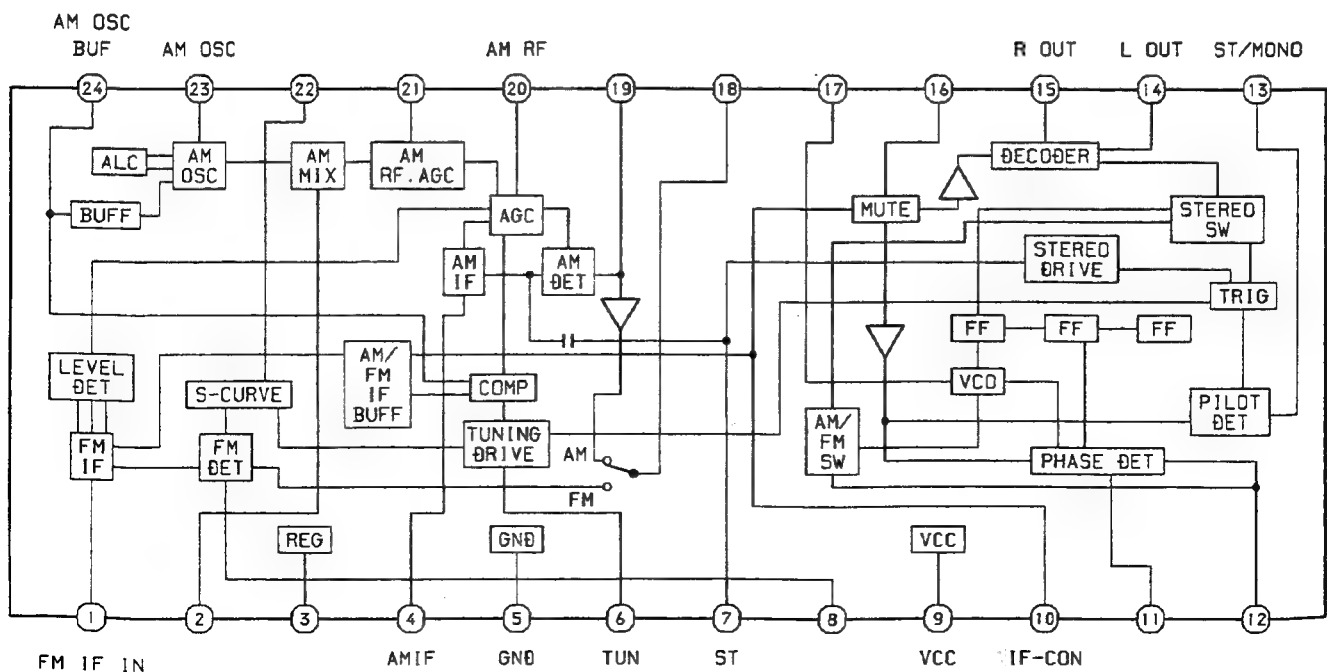
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE



IC, LC7218



IC, LA1831



<ul style="list-style-type: none"> See the CSD-EX70 type U(S/M Code No. 09-962-129-30T) and type HR,EZ (S/M Code No. 09-962-129-80T) of the IC BLOCK DIAGRAM below. 	
CSD-ES70	LCX-100
TA2065F	TA2065F
TA2058F	TA2058F
NJM78M05FA	NJM78M05FA

<ul style="list-style-type: none"> See the CSD-EX70 type U(S/M Code No. 09-962-129-30T) and type HR,EZ (S/M Code No. 09-962-129-80T) of the IC DESCRIPTION below. 	
CSD-ES70	LCX-100
TC9284BF	TC9284BF

IC DESCRIPTION

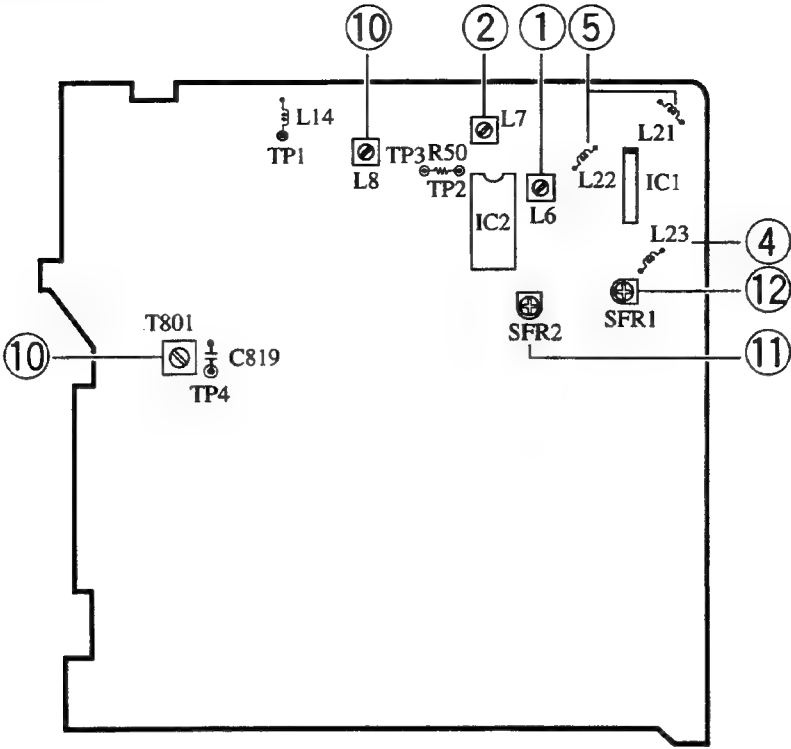
IC, TMP47C1220F-N641

Pin No.	Pin Name	I/O	Description					
1	SEG28	O	LCD segment output terminal.					
2	SEG29	O						
3	SEG30	O						
4	SEG31	O						
5	COM1 COM4	O	LCD common output terminal.					
6	COM1 COM4	O						
7	COM1 COM4	O						
8	NC	—	Not used.					
9	NC	—						
10	VLC	—	LCD drive voltage power supply.					
11, 12	GEQ. B, GEQ. A	O	Preset GEQ control.		OFF	LOCK	POP	JAZZ
				GEQ-B	L	L	H	H
				GEQ-A	L	H	H	L
13	P12	O	Key matrix output.					
14	P13	O						
15	VSS	—	Connected to GND.					
16~19	P20~P23	O	Key matrix output.		KO0	KO1	KO2	KO3
				P12	TAPE-PLAY	TAPE-REC	MONO/ST	POWER
				P13	A0	A1	A2	A3
				P20	FM/AM MODE	MONO/SET	STOP	UP
				P21	REPEAT	BAND	PLAY	DOWN
				P22	ROCK	POP	CLASSIC	(POWER)
				P23	VOL UP	VOL DOWN	AUX	—
20	TEST	—	Test terminal.					
21	X IN	I	Main clock (4.0 MHz).					
22	X OUT	O						
23	RESET	—	Reset terminal.					
24	HOLD	—	Connected to +5V.					
25	KO0	I	Key matrix input.					
26	KO1	I						
27	KO2	I						
28	KO3	I						
29	REM	I	Remote control input.					
30	CD+	O	“H” output when Function is CD.					
31	TU+	O	“H” output when Function is TU.					
32	CE	O	TU chip enable output.					
33	VDD	—	Power supply (+5 V).					
34	DO	I	TUNER control.					
35	OI	O						
36	CL	O						
37	BUS0	I/O	CD control.					

Pin No.	Pin Name	I/O	Description					
38	BUS1	I/O	CD control.					
39	BUS2	I/O						
40	BUS3	I/O						
41	CCE	O	CD chip enable output.					
42	BUCK	O	CD clock output.					
43	PUIN	I	Pick up detection switch input.					
44	DOOR	I	CD-DOOR detection switch input.					
45, 46	F-A (TU), F-B (TU)	O	IC BU4052BC control output.		CD	TU	TAPE	AUX
				F-A (TU) (10)	0	1	0	1
				F-A (TU) (9)	1	0	0	1
47	V-UP	O	VOLUME control output.					
48	V-DWN	O						
49	P-CONT	O	POWER control output.					
50	MUTE	O	MAIN MUTE output.					
51	X IN	I	Sub clock.					
52	X OUT	O						
53	NC	—	Not used.					
54	NC	—						
55~80	SEG2~SEG27	O	LCD segment output terminal.					

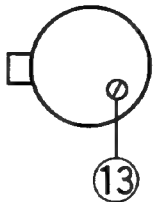
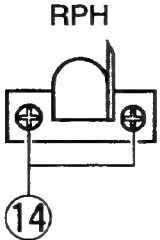
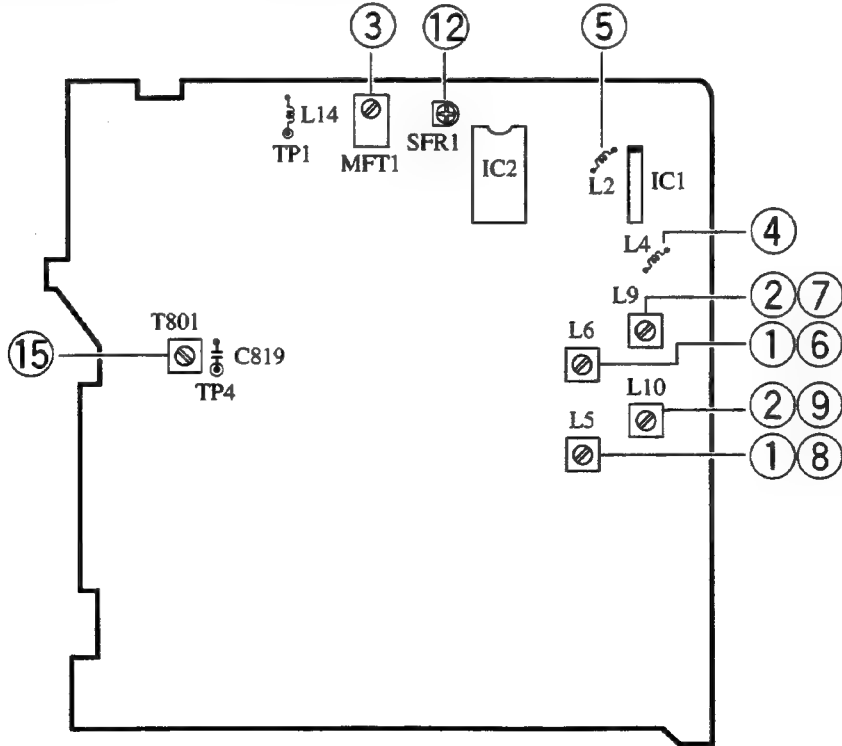
ELECTRICAL ADJUSTMENT

< U MODEL > **A** MAIN C.B (PARTS SIDE)



< EXCEPT U >

A MAIN C.B (PARTS SIDE)



(TUNER SECTION)

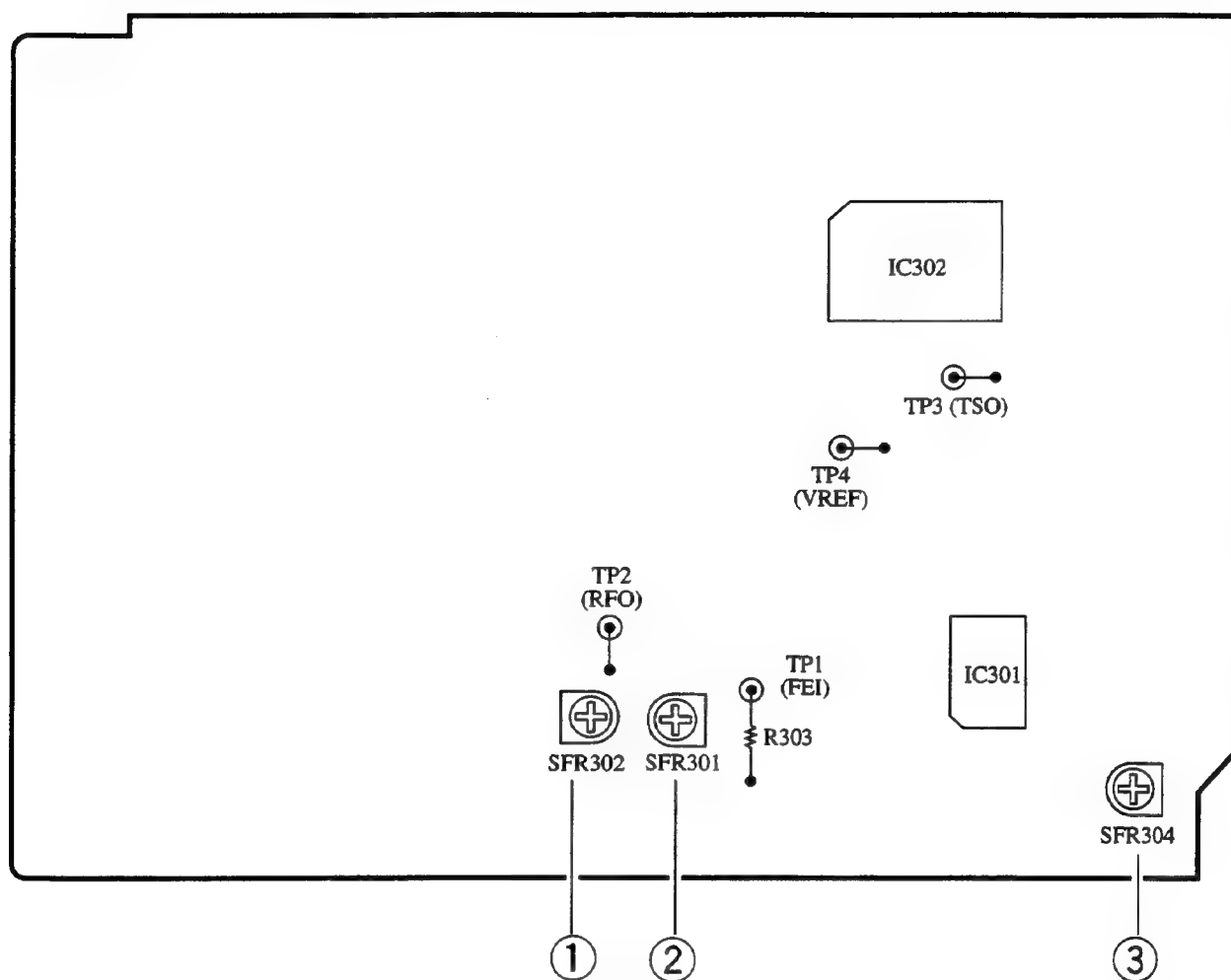
1. AM VT Adjustment (U)
 - Settings:
 - Test point: TP1
 - Adjustment location: L6
 - Method: Set to AM 530kHz adjust L6 so that the test point becomes $1.3V \pm 0.1V$.
1. MW VT Adjustment (HR, HE, LH)
 - Settings:
 - Test point: TP1
 - Adjustment location: L5
 - Method: Set to MW 531kHz adjust L5 so that the test point becomes $1.8 \pm 0.2V$.
1. MW VT Adjustment (K, EZ, EEZ)
 - Settings:
 - Test point: TP1
 - Adjustment location: L6
 - Method: Set to MW 531kHz adjust L6 so that the test point becomes $1.6 \pm 0.2V$.
2. AM Tracking Adjustment (U)
 - L7 600kHz
2. MW Tracking Adjustment
 - L10 (HR, HE, LH) 603kHz
 - L9 (K, EZ, EEZ)
3. MW IF Adjustment (EXCEPT U)
 - MFT1 $450 \pm 1\text{kHz}$
4. FM VT Adjustment
 - Settings:
 - Test point: TP1
 - Adjustment location: L23 (U)
 - L4 (EXCEPT U)
 - Method: Set to FM 87.5MHz and adjust L23 (U), L4 (EXCEPT U) so that the test point is $4.0 \pm 0.1V$ (U), $3.6 \pm 0.2V$ (EXCEPT U).
5. FM Tracking Adjustment
 - L21, 22 (U) 87.5MHz
 - L2 (EXCEPT U)
6. SW VT Adjustment (HR, HE, LH)
 - Settings:
 - Test point: TP1
 - Adjustment location: L6
 - Method: Set to SW 3.8MHz adjust L6 so that the test point becomes $1.2 \pm 0.1V$.
7. SW Tracking Adjustment (HR, HE, LH)
 - L9 3.8MHz
8. LW VT Adjustment (K, EZ, EEZ)
 - Settings:
 - Test point: TP1
 - Adjustment location: L5
 - Method: Set to LW 153kHz adjust L5 so that the test point becomes $2.6 \pm 0.2V$.

9. LW Tracking Adjustment (K, EZ, EEZ)
 - L10 153kHz
10. DC Balance/MONO Distortion Adjustment
 - Settings:
 - Test point: TP2, TP3
 - Adjustment location: L8
 - Input level: 60dB
 - Method: Set to FM 98.0MHz and adjust L8 so that the voltage between TP2 and TP3 becomes $0V \pm 20mV$.
11. AM Auto Stop Adjustment
 - Settings:
 - Adjustment location: SFR2
 - Method: Make setup for AM 1000kHz. Adjust SFR2 so that the machine performs Auto Stop when more than 0.1V is input.
12. FM Auto Stop Adjustment
 - Settings:
 - Adjustment location: SFR1
 - Method: Make setup for FM 98MHz. Adjust SFR1 so that the machine performs Auto Stop when 30dB (U), $30 \pm 5\text{dB}$ (EXCEPT U).

(TAPE SECTION)

13. Tape speed Adjustment (DECK2)
 - Settings:
 - Test tape: TTA-100 (TTA-111S)
 - Adjustment location: SFR of deck motor.
 - Method: Play back the test tape with DECK1 and adjust SFR751 so that the output frequency is 3000Hz. After the adjustment, check that the frequency of DECK2 is $3000 \pm 5\text{Hz}$.
14. Azimuth Adjustment (DECK1, DECK2)
 - Settings:
 - Test tape: TTA-320
 - Adjustment location: Head azimuth adjustment screw
 - Method: Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD PLAY and REV PLAY mode.
15. AC Bias Adjustment
 - Settings:
 - Test tape: TTA-630
 - Test point: TP4
 - Adjustment location: T801
 - Method: Set up the recording mode. Adjust T801 so that the TP4 becomes $56 \pm 1\text{kHz}$.

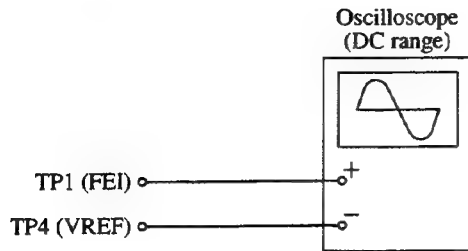
B CD C.B (PARTS SIDE)



(CD SECTION)

Note: Connect a probe (10: 1) of the oscilloscope to a test point.

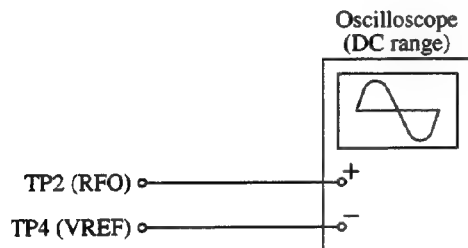
1. Focus offset Adjustment



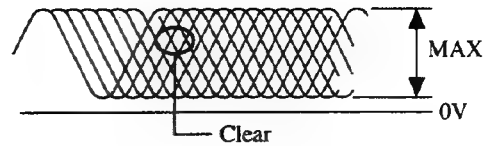
- 1) Make short-circuit between TP2 (RFO) and TP4 (VREF) by wire.
- 2) Connect an oscilloscope between test points TP1 (FEI) and TP4 (VREF).
- 3) Turn on the main power to the CD player.
- 4) Insert the test disc TCD-782 (YEDS-18) and reads the TOC data.
- 5) Adjust SFR302 so that the offset level is $0 \pm 20\text{mV}$.
- 6) Remove short-circuit after completing adjustment.

2. Focus Balance Adjustment

Make the focus bias adjustment when replacing and repairing the optical block.

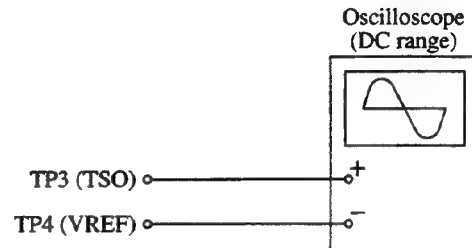


- 1) Connect an oscilloscope to test points TP2 (RFO) and TP4 (VREF).
- 2) Turn on the power switch.
- 3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
- 4) Adjust SFR301 so that the level of RF wave to be maximum and clear.

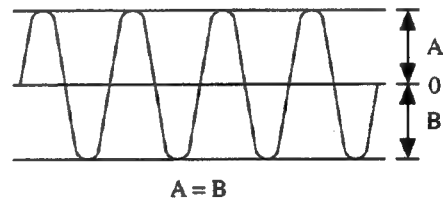


VOLT/DIV: 20mV
TIME/DIV: 0.2μS

3. Tracking Balance Adjustment



- 1) Connect an oscilloscope to test points TP3 (TSO) and TP4 (VREF).
- 2) Turn on the power switch.
- 3) Insert test disc TCD-782 (YEDS-18) and press the PLAY (▶) button.
- 4) Push and hold the [▶] button. (MS mode)
- 5) Adjust SFR304 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.



PRACTICAL SERVICE FIGURE

< TUNER SECTION >

< FM SECTION > (U)

IHF Sensitivity: (THD 3%)	15dB±5dB (at 87.5MHz) 14dB±5dB (at 98.0MHz) 14dB±5dB (at 108.0MHz)
Signal to noise ratio: (Input 54dB)	More than 50dB (at 98.0MHz)
Distortion: (Input 54dB)	Less than 2.0% (at 98.0MHz)
Auto stop level:	20-30dB (at 98.0MHz)
Stereo separation:	More than 25dB (at 98.0MHz)
Intermediate frequency:	10.7MHz

< FM SECTION > (EXCEPT U)

IHF Sensitivity: (THD 3%)	13dB±6dB (at 88.0MHz) 13dB±6dB (at 98.0MHz) 14dB±6dB (at 108.0MHz)
Signal to noise ratio: (Input 54dB)	65±6dB (at 98.0MHz)
Distortion: (Input 54dB)	Less than 2.0% (at 98.0MHz)
Auto stop level:	30dB±5dB (at 98.0MHz)
Stereo separation:	More than 25dB (at 98.0MHz)
Intermediate frequency:	10.7MHz

< AM SECTION > (U)

Sensitivity: (S/N 10dB)	46dB±5dB (at 600kHz) 44dB±5dB (at 1000kHz) 42dB±5dB (at 1400kHz)
Signal to noise ratio: (Input 74dB)	More than 33dB (at 1000kHz)
Distortion: (Input 54dB)	Less than 4.0% (at 1000kHz)
Auto stop level:	45-60dB (at 1000kHz)
Intermediate frequency:	450kHz

< MW SECTION > (EXCEPT U)

Sensitivity: (S/N 10dB)	47dB±5dB (at 603kHz) <HR, HE, LH> 45dB±5dB (at 603kHz) <K, EZ, EEZ> 43dB±5dB (at 999kHz) 43dB±5dB (at 1404kHz)
Signal to noise ratio: (Input 74dB)	More than 35dB (at 999kHz)
Distortion: (Input 54dB)	Less than 3.0% (at 999kHz)
Auto stop level:	More than 63dB (at 999kHz)
Intermediate frequency:	450kHz

< SW SECTION > (HR, HE, LH)

Sensitivity: (S/N 10dB)	40dB±6dB (at 3.8MHz) 35dB±6dB (at 8.0MHz) 30dB±6dB (at 12.5MHz)
Signal to noise ratio: (Input 74dB)	More than 33dB (at 8.0MHz)

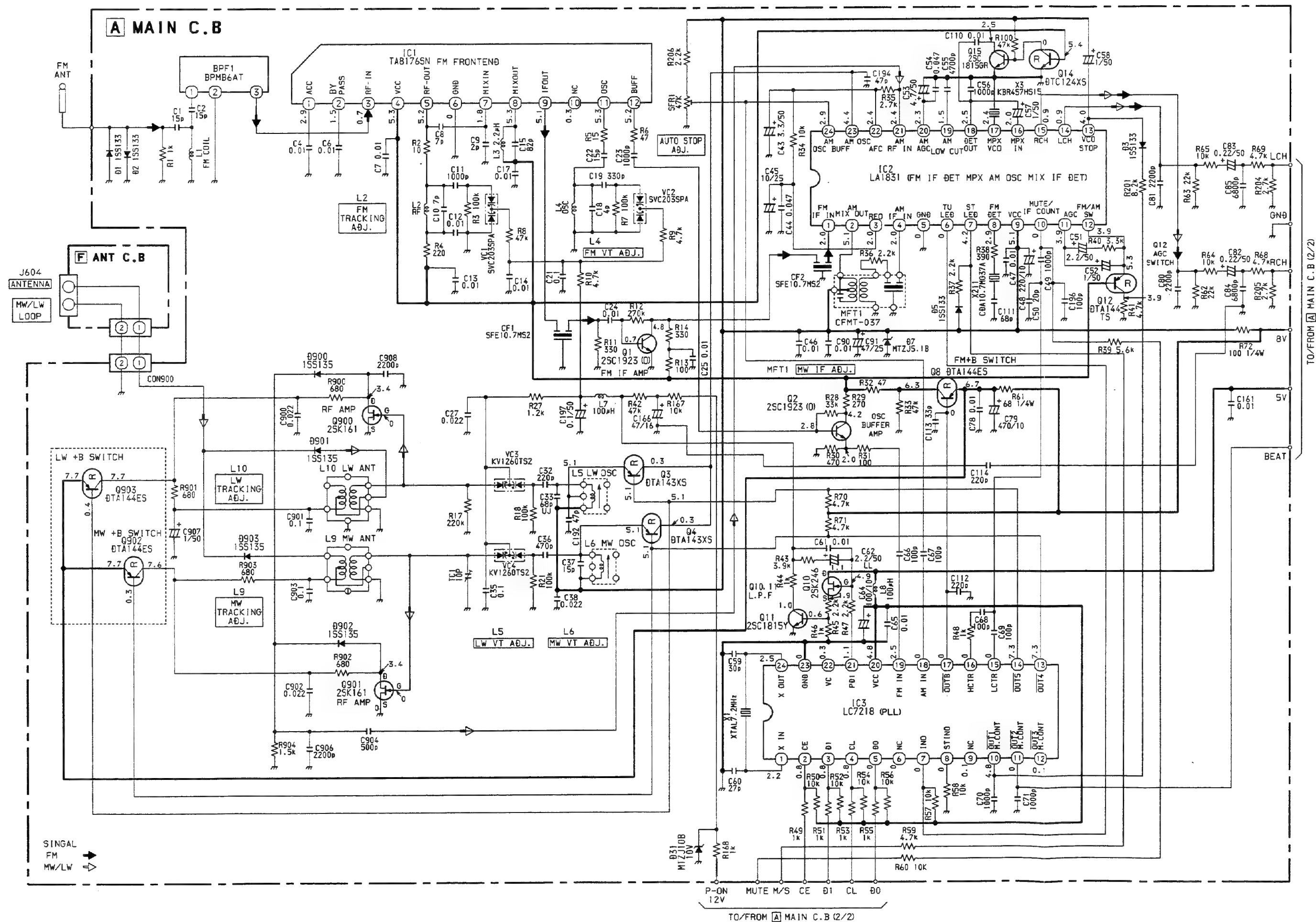
< LW SECTION > (K, EZ, EEZ)

Sensitivity: (S/N 10dB)	58dB±5dB (at 153kHz) 55dB±5dB (at 198kHz) 52dB±5dB (at 288kHz)
Signal to noise ratio: (Input 80dB)	More than 25dB (at 198kHz)

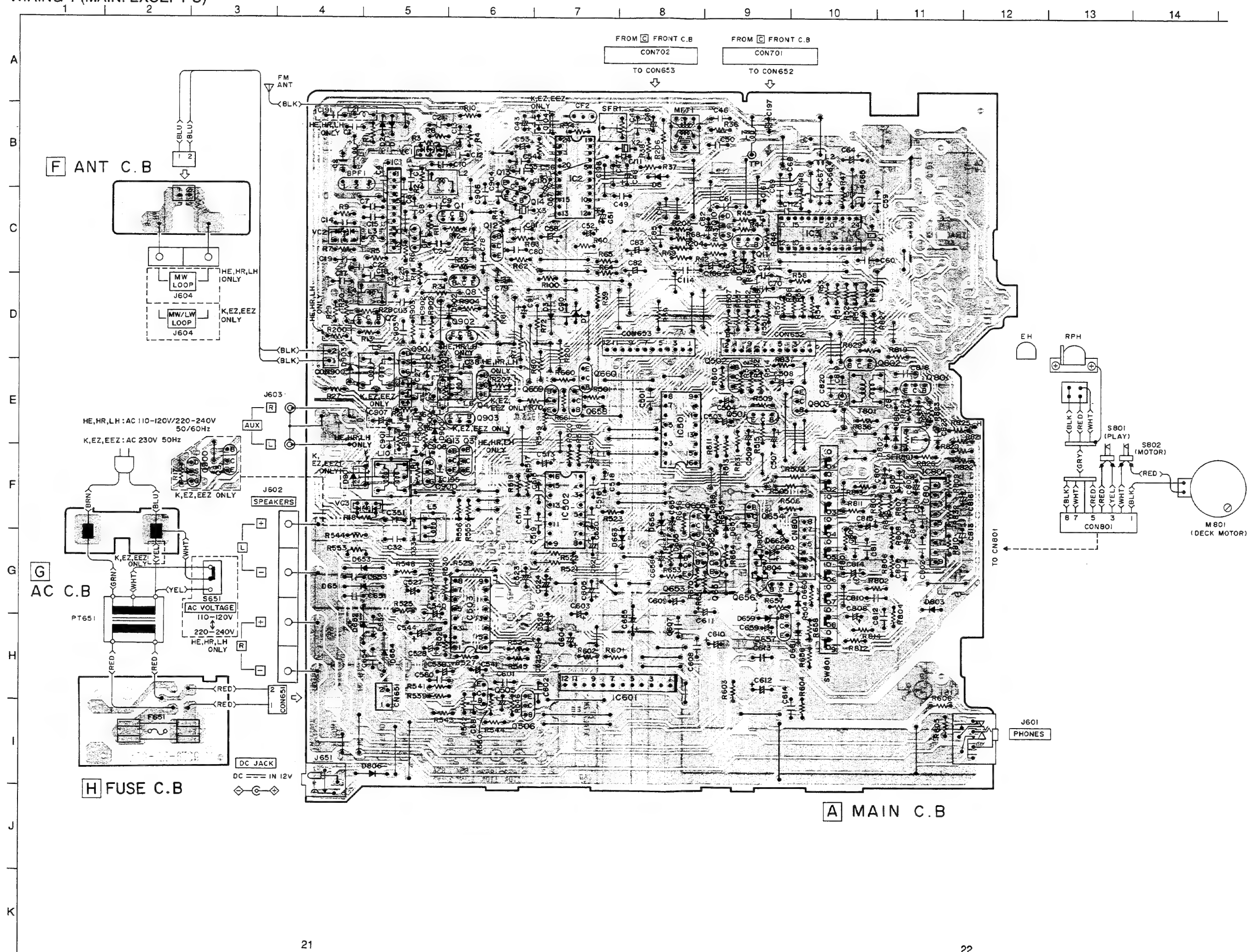
< DECK SECTION >

Tape speed:	3000Hz+3%/-2%
Wow & flutter:	Less than 0.35% (JIS, R.M.S)
Distortion:	Less than 3.0% (PB) Less than 7.0% (REC)
Signal to noise ratio:	More than 40dB (PB, AC) More than 35dB (REC/PB, AC)
Erasing ratio:	More than 55dB
Cross talk:	More than 50dB
Separation:	More than 35dB

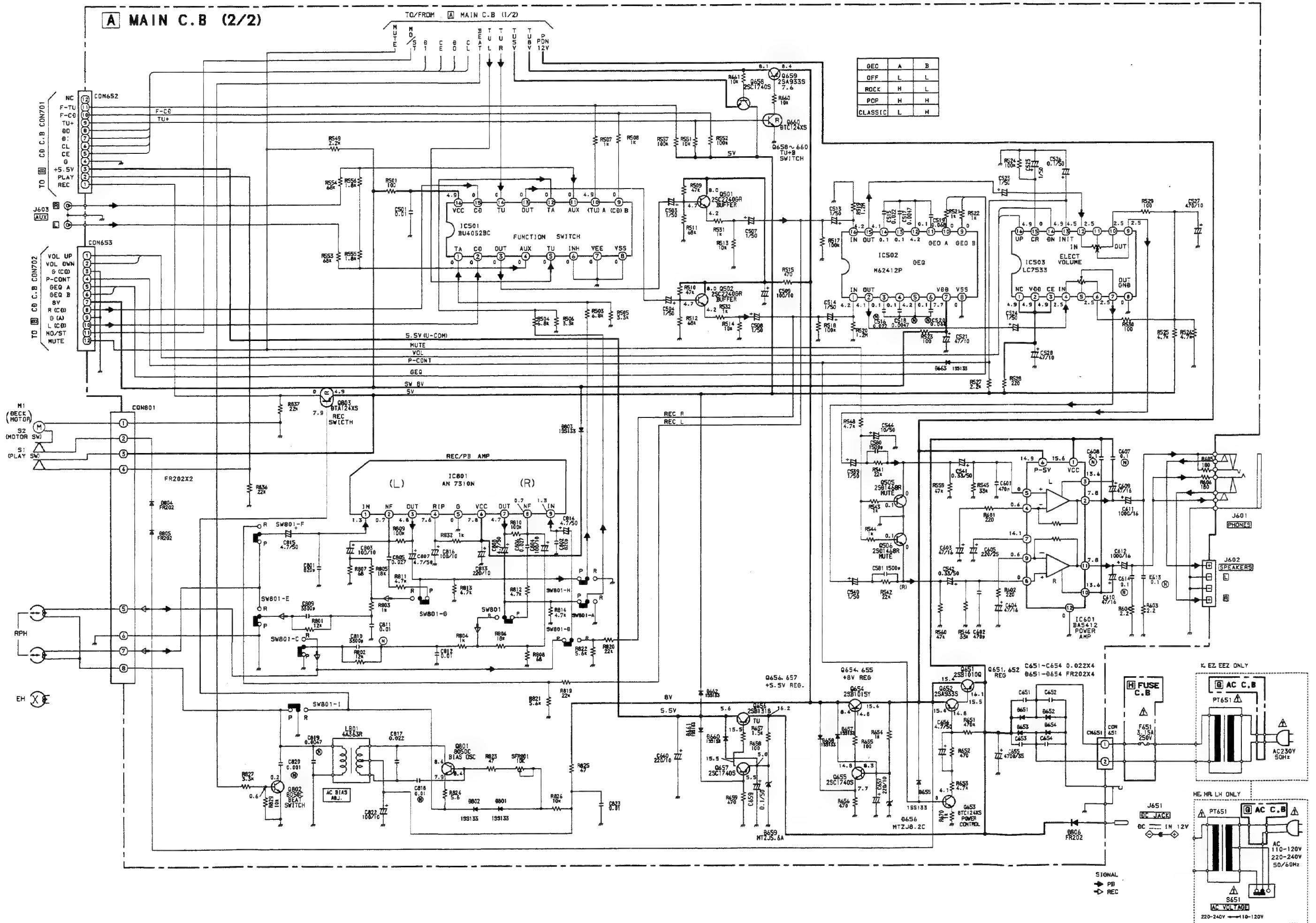
SCHEMATIC DIAGRAM-1 (TUNER: K, EZ, EEZ)



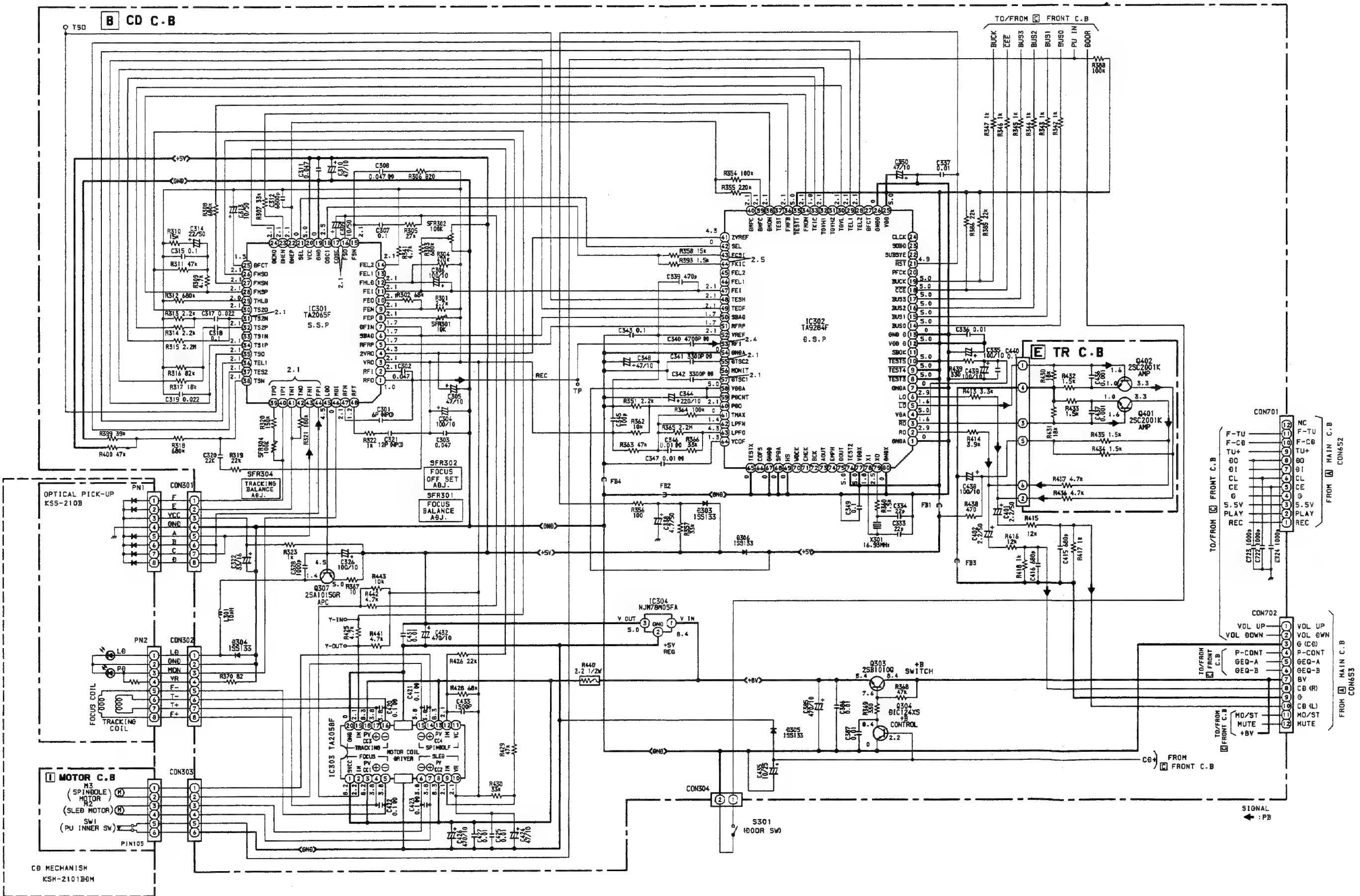
WIRING-1 (MAIN: EXCEPT U)

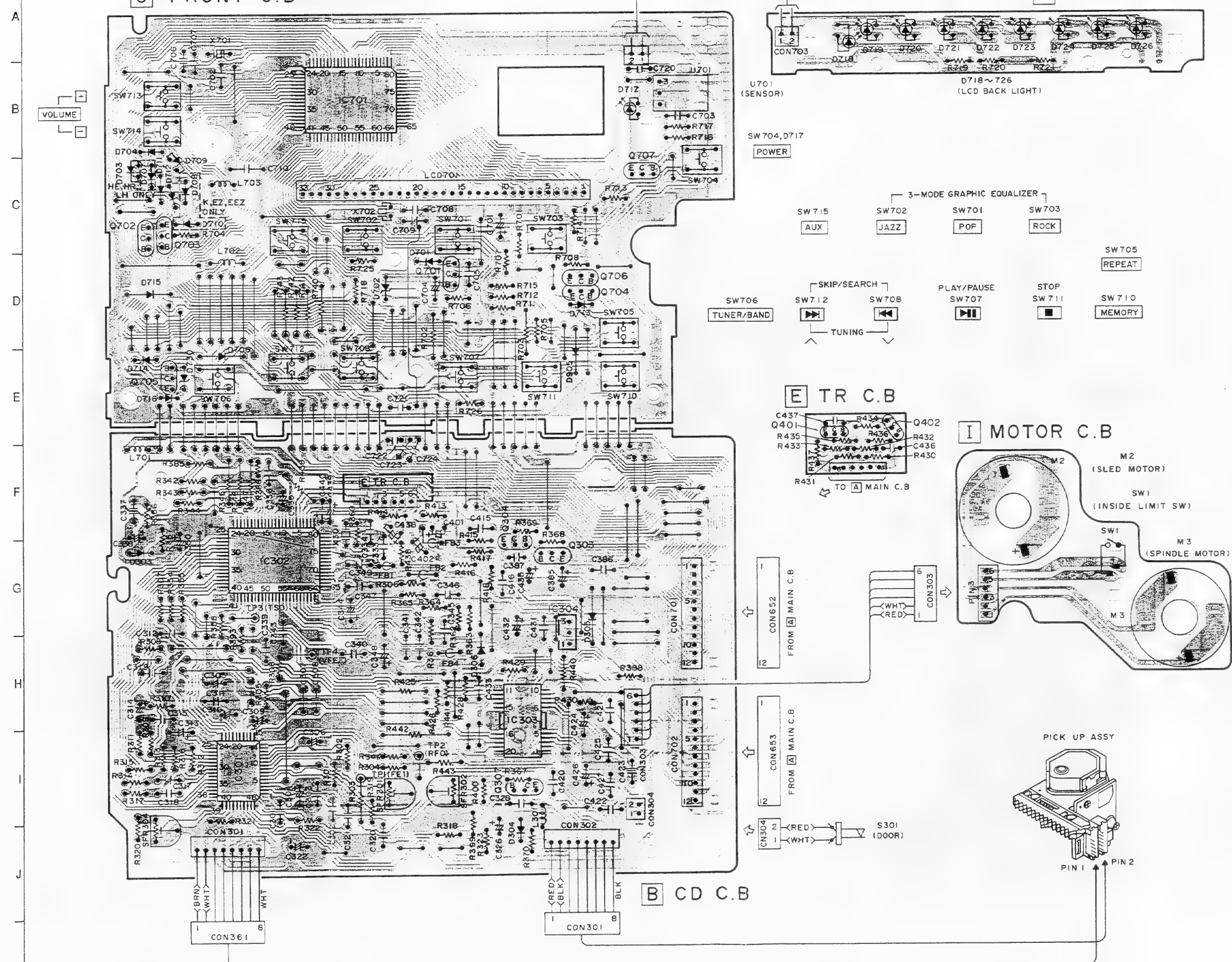


SCHEMATIC DIAGRAM-2 (MAIN: EXCEPT U)



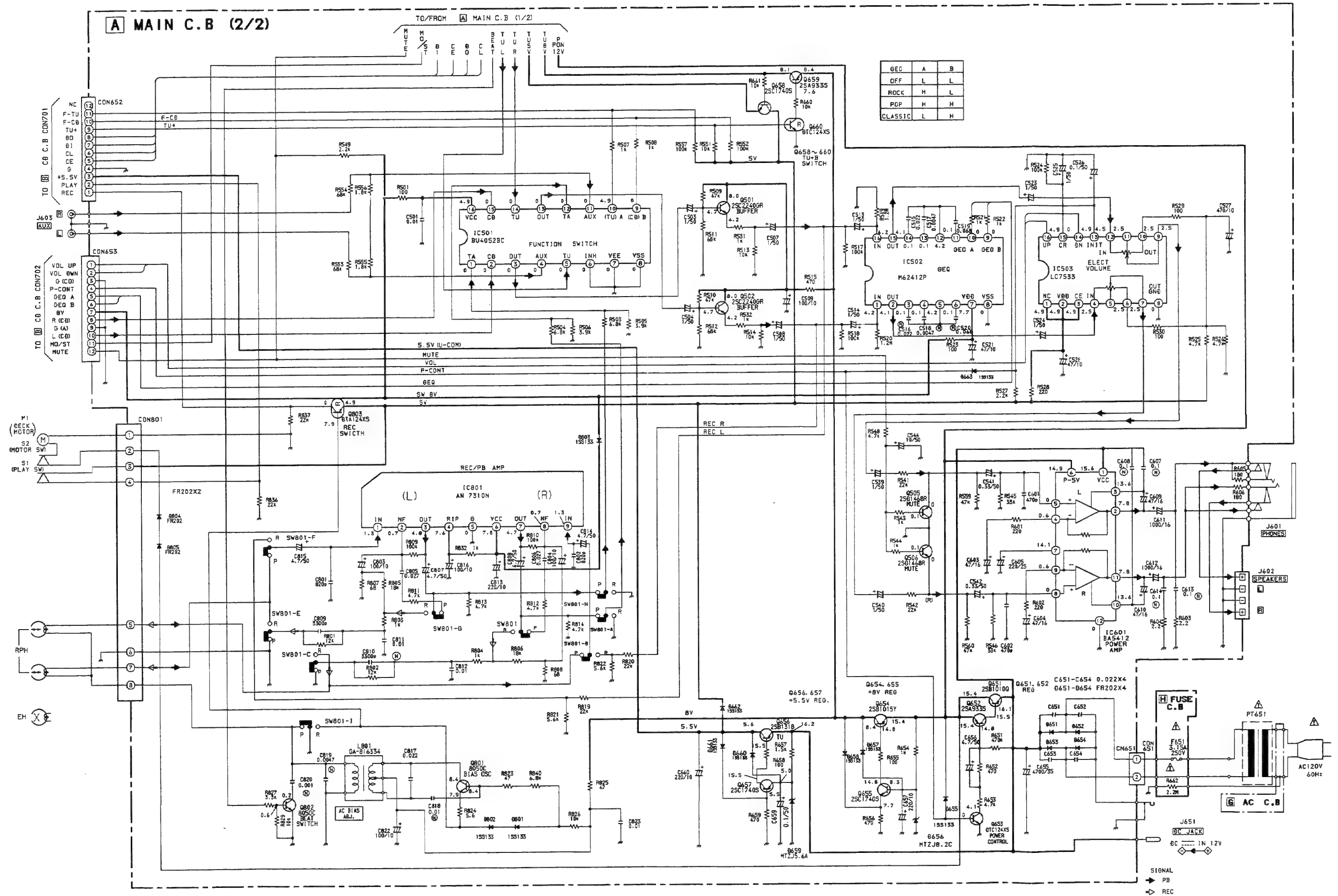
SCHEMATIC DIAGRAM-4 (CD: EXCEPT U)



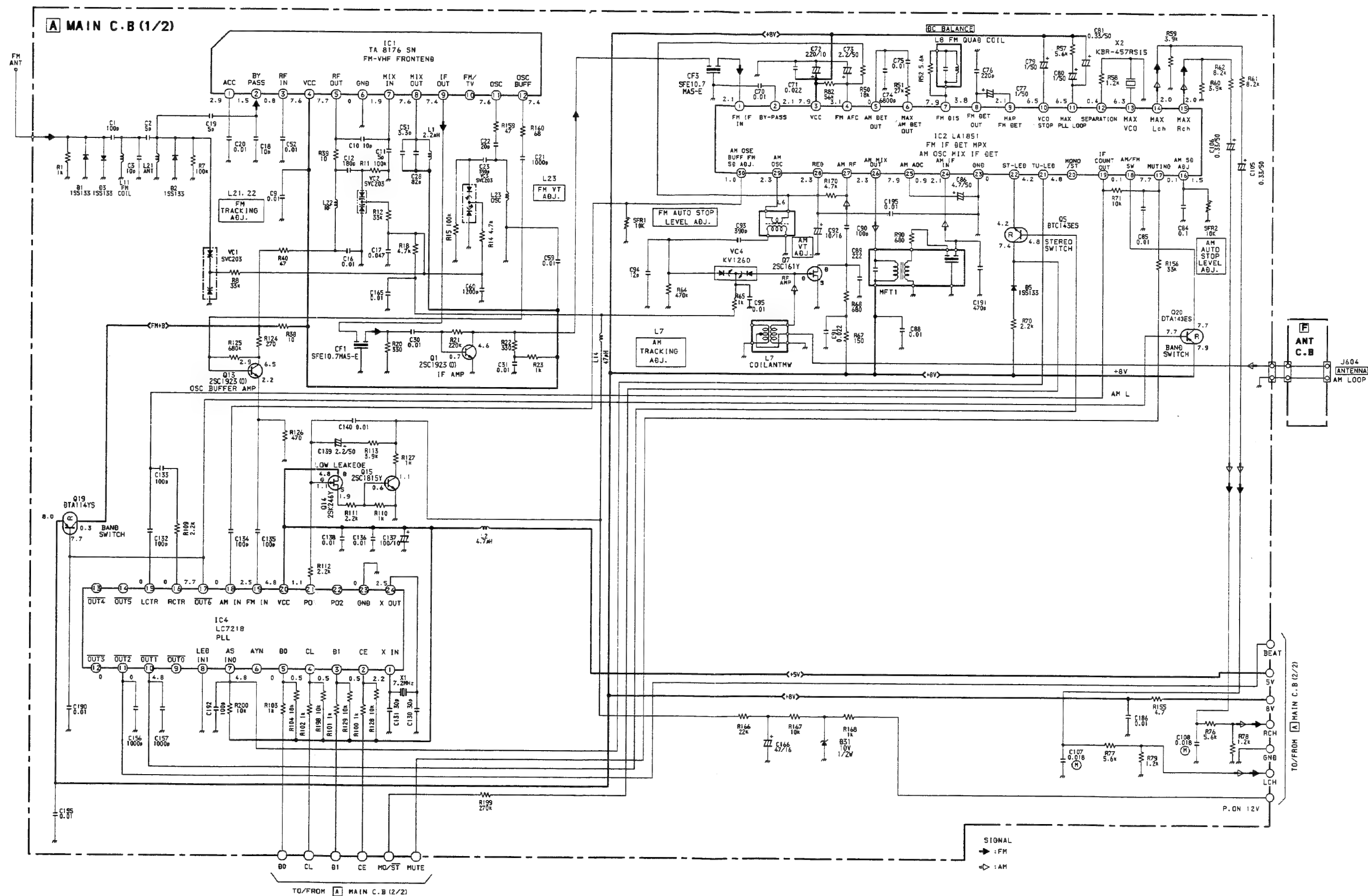




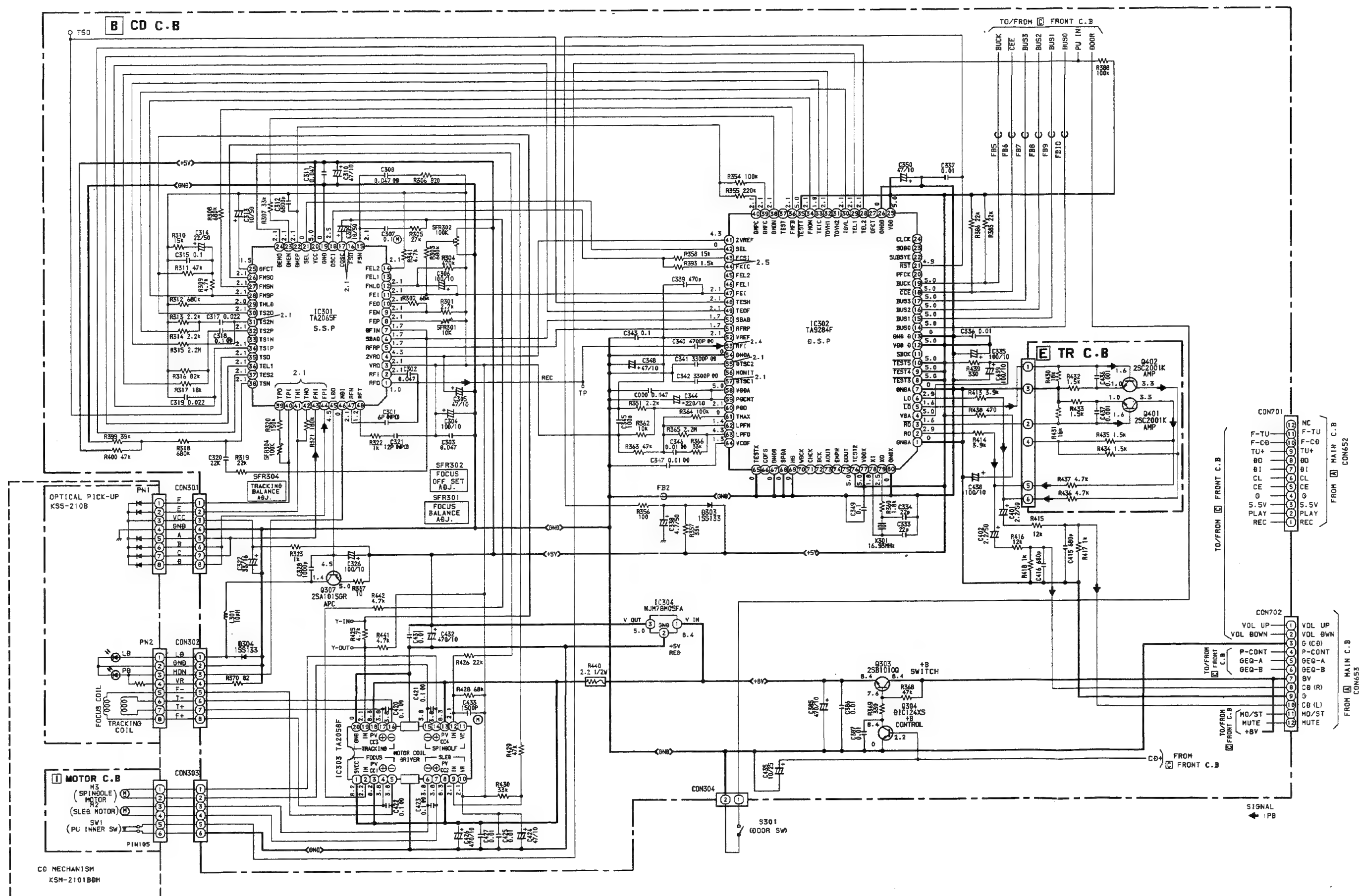
SCHEMATIC DIAGRAM-6 (MAIN: U)



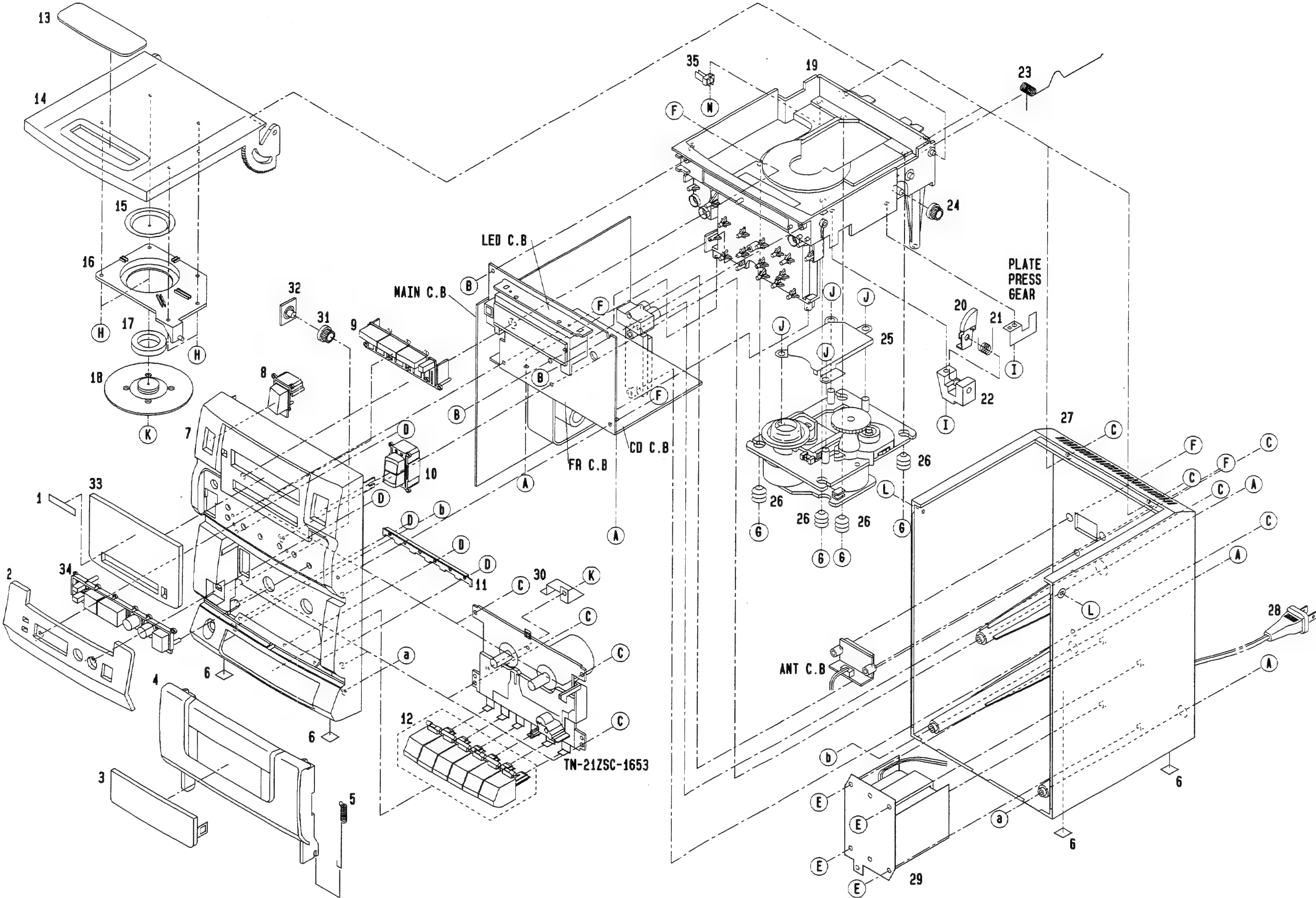
SCHEMATIC DIAGRAM-7 (TUNER: U)



SCHEMATIC DIAGRAM-8 (CD: U)





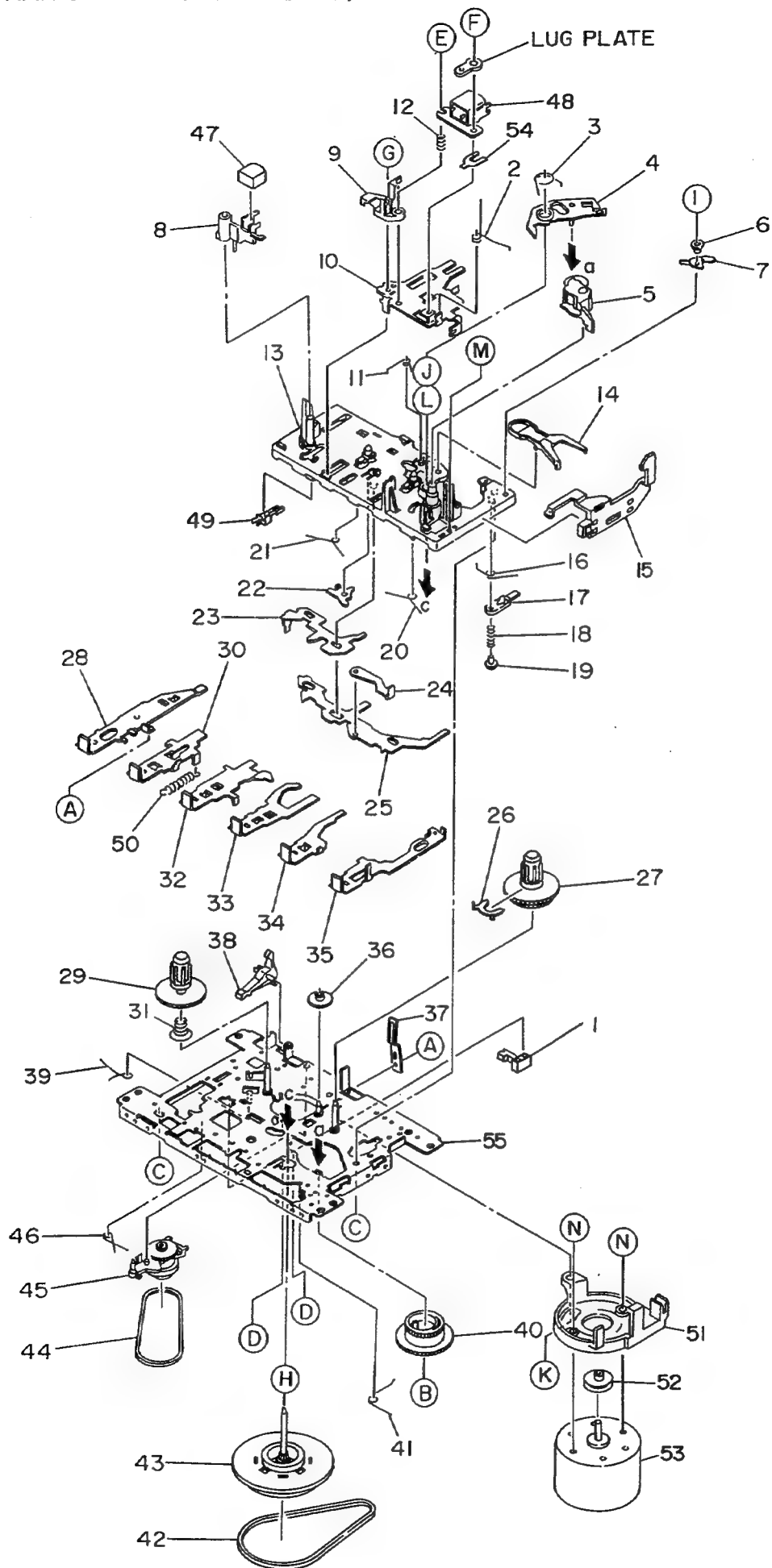


MECHANICAL PARTS LIST 1 / 1

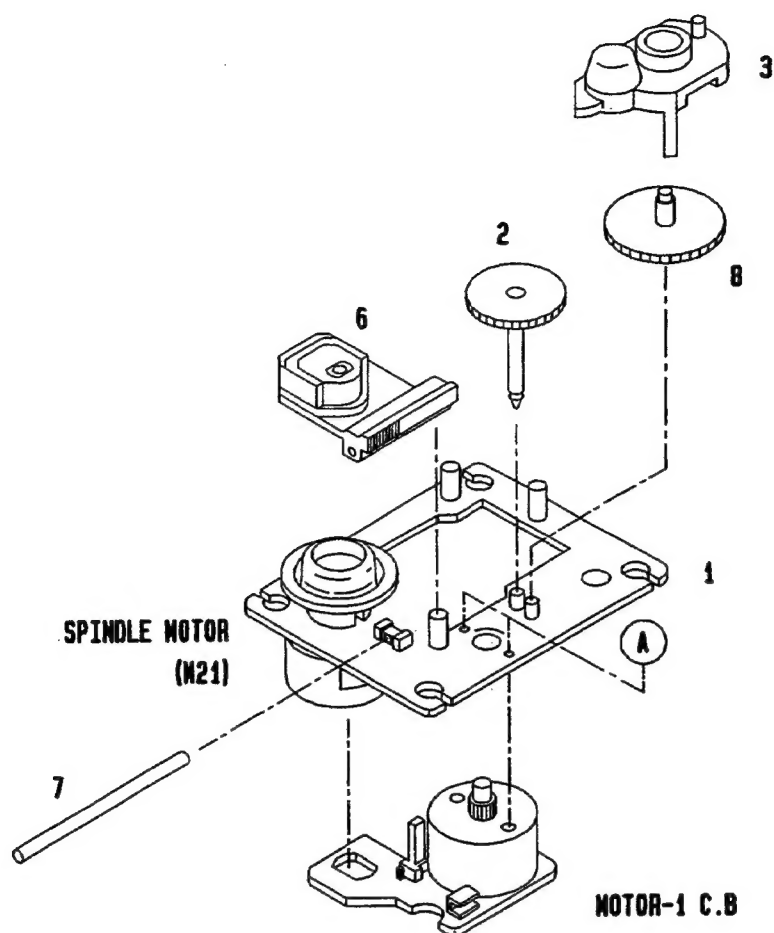
DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	S1-023-360-101		BADGE AIWA
2	S1-033-440-101		PANEL, FRONT
3	S1-033-430-101		CASS WINDOW
4	S1-033-400-101		DOOR, CASS
5	S2-010-930-101		SPR, DOOR CASS
6	S1-033-620-101		FOOT, RUBBER
7	S1-033-370-101		CAB, FRONT
8	S1-033-500-101		BTN, POWER
9	S1-033-490-101		BTN, EQ
10	S1-033-510-101		BTN, VOL
11	S2-010-890-101		HLDR, KEY CASS
12	S1-033-480-101		KEY CASS ASSY
13	S1-033-580-101		CD, WINDOW
14	S1-033-420-101		DOOR, CD
15	S2-009-650-202		MAGNET PLATE
16	S1-033-570-101		BRKT, DOOR CD
17	S2-005-131-000		MAGNET CD DOOR
18	S1-016-882-000		COVER, MAGNET(BLK)
19	S1-033-410-101		CHAS, CD
20	S1-027-430-103		LOCKER DOOR CD(D-GRY)
21	S2-009-210-101		SPR, LOCKER
22	S1-027-420-102		HOLDER LOCKER(D-GRY)
23	S2-010-920-101		SPR, DOOR CD
24	S1-033-630-101		GEAR DAMPER CD<U>
24	S1-033-630-201		GEAR DAMPER CD(B)<EXCEPT U>
25	S2-010-860-102		COVER, CD<U, K, EEZ>
25	S2-010-860-103		COVER, CD<LH, EZ, HE, HR>
26	S3-004-152-000		CUSHON CD
27	S1-033-380-101		CAB, REAR
△	28	S1-400-151-000	CORD POWER AC<EXCEPT U>
△	28	S1-400-471-000	CORD, POWER AC<U>
△	29	S9-030-110-000	PT, EI-57(EKZ)<K, EEZ, EZ>
△	29	S9-030-310-000	PT, EI-57(H)<LH, HE, HR>
△	29	S9-029-810-000	PT, UL(U)<U>
	30	S2-010-900-101	RECORD LEVER
	31	S1-030-850-101	GEAR, DAMPER
	32	S1-030-860-101	BRACKET, DAMPER
	33	S1-033-390-101	DISPLAY WINDOW
	34	S1-033-520-101	BTN, CD
	35	S8-013-410-000	SW, LEAF<U>
	35	87-036-147-010	SW, LEAF LSA-1120Y<EXCEPT U>
	A	87-751-102-410	PH-TS 3-L20MM
	B	87-268-095-010	BH/MS 3-L8MM<U>
	B	87-751-095-410	BH/TS 3-L8MM<EXCEPT U>
	C	87-751-096-410	PH/TS 3-L10MM
	D	87-751-074-410	PH/TA 2.6-L8MM
	E	87-761-097-410	WPT/TA 3-12MM
	F	87-751-096-010	BH/TS 3-L10MM
	G	SC-D00-040-100	CD SCREW DIA 2.6-L17MM
	H	87-723-073-410	KH/TS 2.6-L6MM
	I	87-751-094-410	BH/TS 3-L6MM
	J	87-343-034-010	PH/TS 2-L5MM
	K	87-251-035-410	SCREW U+2-6
	L	87-721-095-410	KH/TS 3-L8MM
	M	87-357-036-010	PH/TS 2-L7MM

TAPE MECHANISM EXPLODED VIEW 1 / 1



CD MECHANISM EXPLODED VIEW 1 / 1



CD MECHANISM PARTS LIST 1 / 1

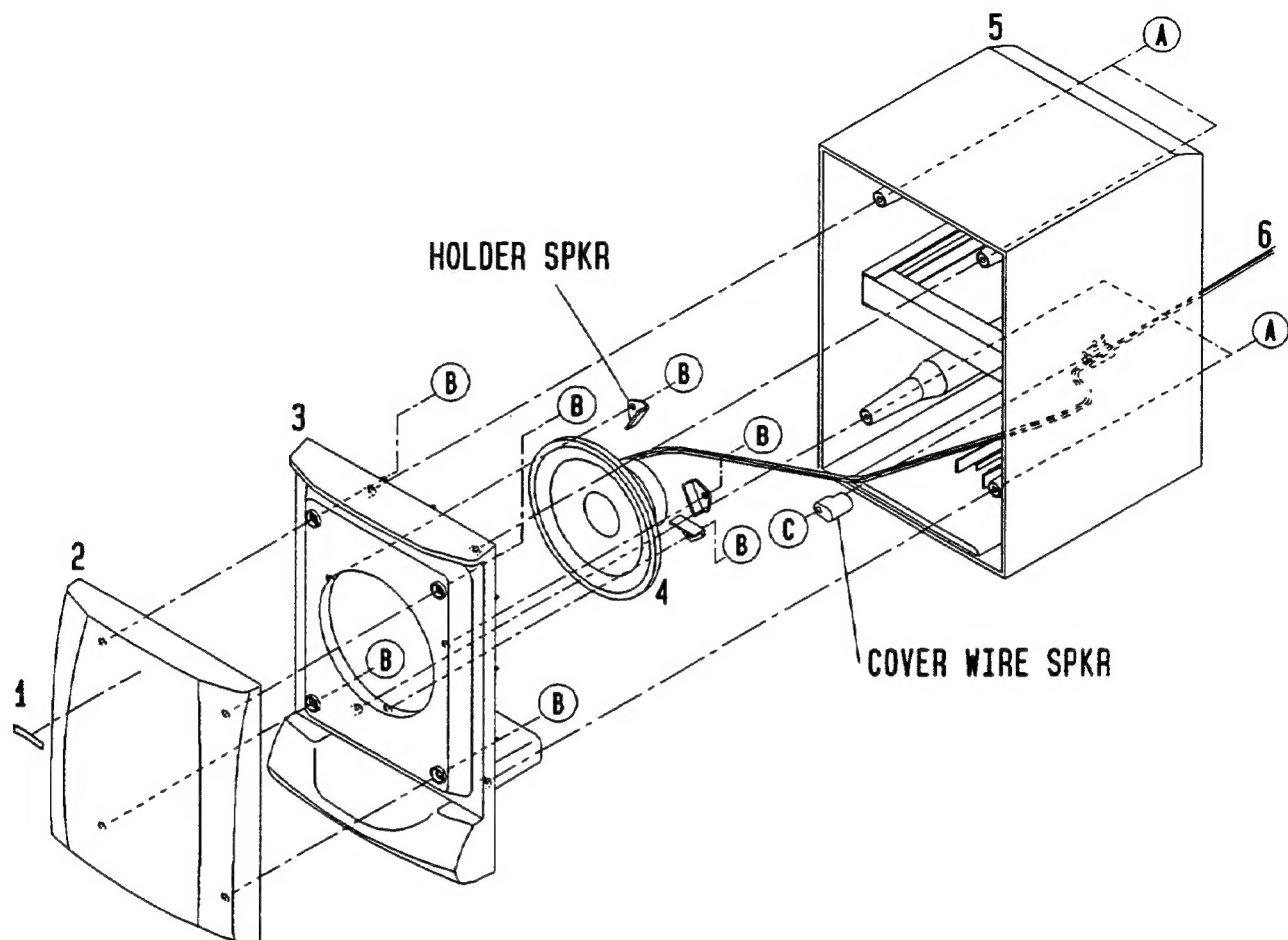
DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
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REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	9X-262-587-010		MOTOR CHASSIS ASSY	8	92-626-081-010		GEAR B
2	92-625-188-020		GEAR (A)	A	87-261-032-210		V+2-3
3	92-625-544-010		COVER				
6	98-848-137-210		OPTICAL PICK UP KSS-210B				
7	92-626-908-010		SHAFT SLED				

TAPE MECHANISM PARTS LIST 1 / 1

REF. NO	PART NO.	カナ NO.	DESCRIPTION
1	S6-401-011-610		LEAF SW MSW-17820MVEI
2	S1-921-030-090		PANEL P SPRING
3	S1-921-260-050		GEAR PLATE SPRING
4	S1-921-265-020		GEAR PLATE ASSY
5	S1-921-043-090		PINCH ROLLER ARM ASY
6	S1-921-140-370		P ARM COLLER
7	S1-921-140-340		P ARM
8	S1-921-030-050		MG ARM
9	S1-921-030-4A0		HEAD BASE
10	S1-921-030-110		HEAD PANEL
11	S1-921-141-8A0		M CONTROL SPRING
12	S1-821-030-070		AZIMUTH SPRING
13	S1-921-143-010		BASE ASSY
14	S1-921-260-4A0		SENSING LEVER
15	S1-921-130-020		EJECT SLIDE LEVER
16	S1-921-141-3A0		P CONTROL SPRING
17	S1-921-140-550		PAUSE LEVER(E)
18	S1-921-140-120		PAUSE LEVER SPRING
19	S1-921-140-110		PAUSE STOPPER
20	S1-921-140-150		BUTTON LEVER SPRING(B)
21	S1-921-140-140		BUTTON LEVER SPRING(A)
22	S1-921-140-200		PR STOPPER
23	S1-921-140-090		SWITCH ACTUATOR
24	S1-821-011-590		E KICK LEVER
25	S1-921-140-080		PUSH BUTTON ACTUATOR
26	S1-921-050-060		SENSOR
27	S1-921-053-030		TAKE UP REEL ASSY
28	S1-921-140-220		REC BUTTON LEVER
29	S1-921-053-040		SUPPLY REEL ASSY
30	S1-921-140-230		PLAY BUTTON LEVER
31	S1-821-100-990		BACK TENSION SPRING
32	S1-921-140-240		REW BUTTON LEVER
33	S1-921-140-250		FF BUTTON LEVER
34	S1-921-140-260		STOP BUTTON LEVER
35	S1-921-140-610		PAUSE BUTTON LEVER
36	S1-821-100-700		FF GEAR
37	S1-829-100-010		PACK SPRING
38	S1-821-100-690		RECORD SAFETY LEVER
39	S1-921-140-210		REC BUTTON LEVER SPRING
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-090-040		MAIN BBELT
43	S1-921-093-030		FLYWHEEL ASSY
44	S1-921-070-030		RF BELT
45	S1-921-073-080		RF CLUTCH ASSY
46	S1-921-140-170		P.S.LEVER SPRING
47	S6-209-100-100		E HEAD PH-K380-MS1
48	S6-201-011-110		HEAD,RP7442ES-0951
49	S6-401-011-490		LEAF SW MSW-1541T
50	S1-821-010-500		PLAY BUTTON LEVER SPRING
51	S1-821-128-9A0		MOTOR BRACKET
52	S1-921-120-010		MOTOR PULLEY
53	S6-002-030-220		MOTOR EG530AD-2B
54	S9-539-000-000		Y WASHER B.S 0.2T
55	S1-921-015-010		CHASSIS ASSY
A	S9-179-000-000		C TAP SCREW M2-3
B	S9-422-000-000		P WASHER CUT 12-3.8-0.3
C	S9-679-000-000		P TAP SCREW M2-5
D	S9-999-180-090		TAP SCREW M2-4.5
E	S9-922-000-000		AZIMUTH SCREW M2-8
F	S9-115-000-000		+ BIND SCREW M2-3
G	S9-004-000-000		SCREW M2-6
H	S9-882-000-000		P WASHER 2-3.5-0.4
I	S9-999-200-410		P TAP SCREW M2-3
J	S9-999-030-130		P WASHER CUT 1.45-3.8-0.
K	S1-921-120-030		MB SCREW
L	S9-999-000-030		P WASHER2.1-4-0.13
M	S9-P05-200-610		S TAPPING SCREW M2-6
N	S1-921-120-020		MOTOR COLLER SCREW

SPEAKER EXPLODED VIEW 1 / 1



SPEAKER PARTS LIST 1 / 1

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	S1-023-360-101		BADGE AIWA
2	S1-033-470-101		FRAME NET SPKR
3	S1-033-450-101		CAB, FRONT SPKR
4	S1-700-631-000		SPKR (B) LCX100
5	S1-033-460-101		CAB, REAR SPKR
6	S1-1B1-764-L00		WIRE, SPKR
A	87-751-102-410		PH-TS 3-L20MM
B	87-268-095-010		BH-MS 3-L8MM<U>
B	87-751-095-410		BH-TS 3-L8MM<EXCEPT U>
C	87-751-096-410		PH/TS 3-L10MM

ACCESSORIES / PACKAGE LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	S4-401-451-000		INSTRUC, BOOK (HEJ/HRJ) <LH, HE, HR>
1	S4-401-471-000		INSTRUC, BOOK (K/E) <K, EZ, EZ>
1	S4-401-441-000		INSTRUC, BOOK (U) <U>
2	SA-N00-373-000		ANT, LOOP AM
3	SR-C10-0D0-000		RC, RC-LCX100D<U>
3	SR-C10-0EX-000		RC, RC-LCX100EX<EXCEPT U>

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
サージサプレッサ	SERGESUPPRESSOR
セラコン	CAP, CERA

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
ジグアーム	ARM, SHAFT
ジグガイド	GUIDE, SHAFT
ストラップ	STRAP
トクナベ	S-SCREW
ヒンジ	HINGE
ヒンジビス	S-SCREW
ビスセレート	SCREW, SERRART

サービス技術ニュース	
番 号	連絡内容
G - -	
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